BOSTON'S OWN COMPUTER NEWSMAGAZINE SINCE 1986

COMPUTER currents®

Volume 7 Number 5 MONTHLY May 1992

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How Much PostScript Do You Really Need?

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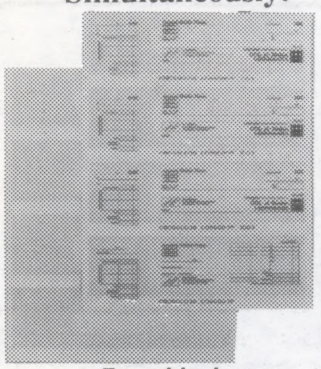

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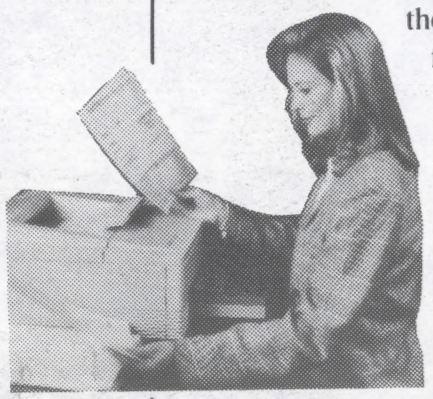

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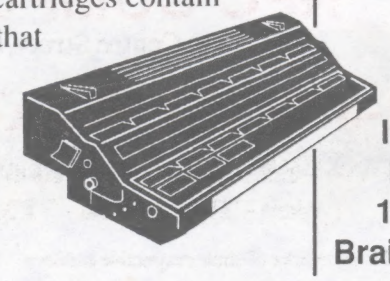

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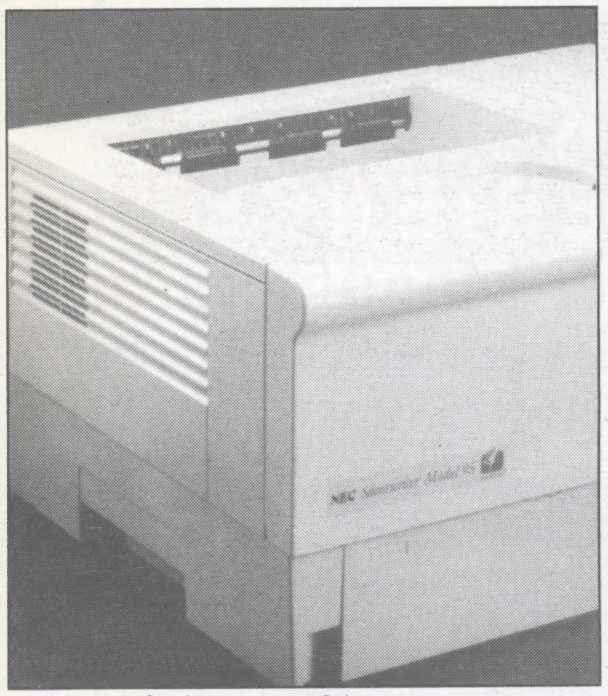

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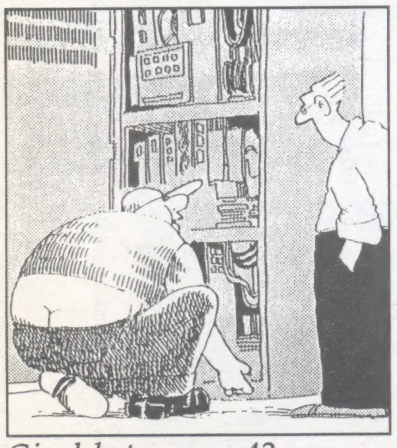

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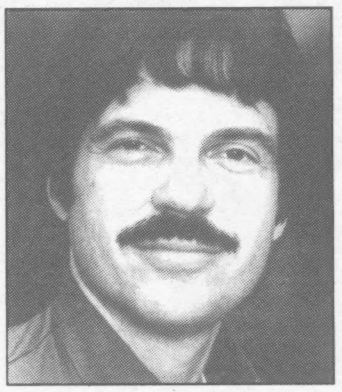
LOOKING AHEAD

"Intimate Computing" Is The Wave of the Future



Alan C. Kay

Technology is moving from personal computing to "intimate computing," but many of today's top vendors won't be able to follow, said industry visionary Dr. Alan C. Kay, speaking last week at CSC Exchange, an annual forum held in Cambridge, Mass. for senior IS (Information Systems) and business executives. (The conference is sponsored by Computer Sciences Corp., Cambridge , Mass.)

The new era of intimate computing will be characterized by networks of small wireless machines, featuring user interfaces equipped with intelligent software agents, noted Kay, now an Apple Computer Senior Fellow and previously a founding principal at the pioneering Xerox Palo Alto Research Center.

The future will also bring transitions to end user application development, object-oriented programming (OOP), and computer simulation, added Kay, who designed the overlapping window interface that has since become the hallmark of Apple's personal computers.

The new paradigm of intimate computing will overtake the personal computing model, just as surely as personal computing has superseded industrial computing, predicted Kay. "But few computer companies are capable of making the migration from one paradigm to another," he stressed. Some of Apple's competitors are still stuck in the institutional computing age, and even Apple, an innovator in personal computing, will be challenged by the latest evolution, he said.

As the new era dawns, Japanese business is well positioned against the U.S., because Japanese firms have bought up the patents for flat panel displays developed in the U.S. back in the sixties, said Kay.

Over the next couple of years, software agents on the new wireless computing devices will be "semi-intelligent," and able to help users with such applications as calendaring and e-mail, but plagued by a tendency to circumvent programmers' intentions by taking instructions too literally, he said. In the second half of the decade, he predicts that the agents will become increasingly smarter.

At the same time, the rise of object-oriented programming will let end users start to build more of their own applications, in much the same way they now create their own spreadsheets and word processing documents. Already, there are more HyperCard programmers in the U.S. than Cobol programmers, and many of these HyperCard programmers are end users, he pointed out. Further, even now, OOP software is allowing users to perform such tasks as modifying e-mail systems, he said.

To illustrate the changes underway, Kay used the example of a new billing system at Brooklyn Union Gas (BUG), a large gas utility in New York City. Running on PCs, 350 wireless radio terminals, and a 3270 IBM mainframe, the system automates all aspects of the company billing system, including cash processing, field service, general accounting, credit collection, and meter reading.

The program is written in Smalltalk, an OOP programming language developed by Kay. Programmers were able to build applications for the BUG system in three to four months, typically teaming up with end users for a few days as part of the process, he said.

"Ultimately, one of the goals is to get the users to (program applications) on their own," Kay commented. Smalltalk and other OOP languages are less complex than Cobol, involving far fewer lines of code, he explained. "Even a novice OOP user can be productive (as a programmer) after two to three weeks," Kay asserted.

—Jacqueline Emigh, Newbytes

"Eye of the Needle" will return next issue.

LETTERS

TrueType Worth the Slowdown

Editor:

I read Randy B. Singer's article "Speeding Up System 7" in your March issue with interest, as I too run Macintosh System 7. I have used some of the techniques he suggests and they work. I plan to try the others.

Mr. Singer has been misinformed, however, about the way the Mac uses TrueType fonts. It creates a screen font from TrueType outlines, with the attendant slowdown, only if a bit-mapped font in the required size is not installed. In other words, having TrueType fonts in the System folder does not slow the system down unless they're needed. If the TrueType fonts are removed the system will scale a bit-mapped font up or down to get odd sizes. This is a bit faster than scaling TrueType but it makes the screen look terrible. Since the average person usually uses standard font sizes and cares about screen appearance, the tradeoffs are worth it.

The easiest way to verify that bit-mapped fonts take priority over TrueType is with Monaco font, since its bit-mapped and TrueType versions are visibly different. Type a word twice in 12-point Monaco with both the bit map and TrueType installed. Then change one to 13 points. It will look as if two different fonts were used. The reason: the Mac used its bit map for 12-point type, but scaled the TrueType outlines for 13-point text because it did not have a 13-point bit map. The same happens with other fonts, but it's less visible because most TrueType fonts match the bit-mapped versions more closely.

I enjoy reading *Computer Currents* and learn a lot from it. Nit-picks like this are few and far between. Keep up the good work!

Efrem G. Mallach
Needham, Mass.

Editor's Note:

In our April issue we included a chart of 486/33MHz systems priced under $3,000 (systems mentioned included a SuperVGA monitor, a graphics card, 4MB of RAM, and a hard disk of 40MB or greater). As we noted this list was by no means complete. If any manufacturers were omitted it was not intentional. Nor was it meant to imply any quality judgements as to why some companies were included and others were not. Several well-known New England companies were not included, among them:

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Dataware Products	Westwood, MA	617/461-1160	DPI 486/33
FSG Computer	Salem, NH	603/898-3828	FSG 486/33
Gigabyte Computer	Milford, MA	508/478-4688	486/33
Microtech Systems	Brookline, MA	617/232-7405	486/33
NE Electronic & Technology	Lowell, MA	508/454-9192	486/33
PCs for Everyone	Cambridge, MA	617/868-3828	486/33
Total Peripherals	Marlboro, MA	508/460-0764	TP-486

We regret any confusion this may have caused.

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Boston Computer Currents
4 Chrysler Road
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Editorial
Editor
David Needle

Boston Editor
Marguerite Zientara

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Newsbytes
Wendy Woods, 822 Arkansas St., S.F., CA 94107; 415/550-7334

Columnists
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Andrew Hardardt

Cover Photography
Bradley Ream/Studio Ryo 510/547-4919

Staff Photographer
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BOSTON COMPUTER NEWS

By Marguerite Zientara

Lotus Ships Clip Art Library for Windows

Lotus Development Corp. (Cambridge, Mass.) has introduced SmartPics for Windows, a clip-art library with more than 2,000 pieces of artwork, featuring a browsing capability.

SmartPics' browser is said to let users quickly scroll through the library and view images before adding them to Windows word processing, spreadsheet, e-mail, or presentation applications via the Windows Clipboard.

SmartPics includes images in the following categories: business, medical, sports, education, and thematic cartoons. The artwork includes realistic depictions, such as typical office situations, as well as stylized renderings and caricatures. The package also offers a wide variety of page backgrounds, arrows, graphical elements and polygon typefaces.

Users can run SmartPics from the Windows Program Manager or via Object Linking and Embedding (OLE). OLE allows SmartPics to become a menu option on many word processing, spreadsheet, e-mail, and business presentation packages. SmartPics comes with Lotus SmartIcons and macros for push-button access to visuals within the Lotus suite of Windows applications, including 1-2-3, Ami Pro, Freelance Graphics, cc:Mail, and Lotus Notes.

SmartPics for Windows requires an IBM PC AT or compatible (286 or higher), a Windows-compatible display, 2MB of RAM, at least 2MB of hard disk space, Windows 3.0 or higher, and DOS 3.0 or higher. SmartPics costs $195; network node licenses cost $49. Lotus is at 55 Cambridge Parkway, Cambridge, MA 02142. Telephone 617/577-8500.

SoftLogic Solutions Unveils Low-Cost Memory Manager for 386/486 Systems

SoftLogic Solutions, Inc. (Manchester, N.H.) has introduced a $49.95 (introductory price, $39.95) memory management program for 386 and 486 personal computers, said to satisfy the requirements of power users and to feature a user interface especially designed for novices.

Memory Miser lets users easily optimize their systems' memory utilization to make their systems run faster and increase the data capacity of programs. Unlike memory managers that require command line switches entered via the CONFIG.SYS file, Memory Miser uses a multiple-choice and fill-in-the-blanks options control program to modify feature settings.

Right out of the box, Memory Miser is said to supply EMS expanded memory, XMS extended memory, VDS for Windows, ROM copying, hidden RAM recovery, and automatic lower RAM backfill in its automatic setup feature set.

Memory Miser requires DOS 3.0 or higher and runs on any PC based on the 386 or 486 CPU containing at least 1MB of RAM. Memory Miser supports Windows in either Enhanced or Real mode. SoftLogic Solutions is at 1 Perimeter Road, Manchester, NH 03103. Telephone 603/627-9900 or 800/272-9900.

DEC Announces Speech Synthesizer for Vision Impaired

Digital Equipment Corp. (DEC; Maynard, Mass.) has announced DECtalk PC, a speech synthesizer option designed primarily for those who are blind or vision impaired. The product is an option for DECstation PCs and IBM PC/XT/ATs and compatibles.

DECtalk PC, in conjunction with third-party "screen reader" software, provides visually impaired individuals with enhanced access to PCs by allowing them to hear both keyed input and material displayed on the screen.

Screen reader software resides in memory while applications such as Lotus 1-2-3 or WordPerfect are running, and monitors input from a keyboard and output from a screen. The screen reader program then outputs what it is monitoring to the DECtalk PC speech synthesizer.

DECtalk PC includes a full length ISA bus option card, an external speaker, DECtalk software and documentation. All components are identified with Braille labels, and a Braille "Getting Started" card is included.

DECtalk PC (model number DTC07-AA) costs $1,195, and carries a one-year warranty. To order, call 800/344-4825; for pre-purchase technical assistance, call 800/343-4040. DEC's address is simply Maynard, MA 01754.

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Leading Edge Cuts Prices on 386 Systems; Introduces "Legal Size" Notebook

Leading Edge Products, Inc. (Westborough, Mass.) has cut the prices (up to 18 percent) on all its 386SX and 386DX portable, desktop and tower systems.

Effective immediately, Leading Edge has reduced prices on six systems, including three of its best-selling models. The N3/SX20 notebook with 2MB of RAM and a 60MB hard drive has been cut from $2,399 to $1,999. The D3/SX-20c desktop unit, with 2MB of RAM, 32K cache, and a 130MB hard drive, was formerly $2,199 and now costs $1,799. The 16MHz D3/SX Plus base model now costs $799, down from $899.

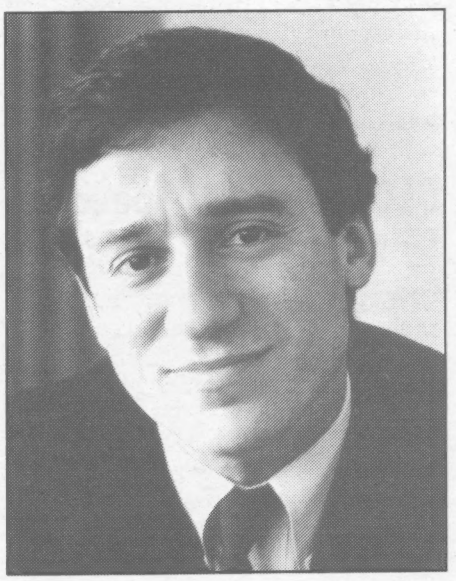
The N3/SL25 Plus, said to be the industry's first "legal size" notebook, is a 7-pound unit measuring 13 x 8 1/2 x 1.8 inches, slightly smaller than a legal sized notepad. The larger keyboard features standard key spacing and 12 function keys, as well as a separate numeric keypad and integrated trackball.

The system runs the Intel 80386SL at 25MHz and includes a 10-inch monochrome triple supertwist sidelit screen capable of 64 shades of gray (true VGA) and a built-in 2400-baud MNP 10 modem with send-fax capability. The unit provides a 32K memory cache and 2MB of memory, expandable to 8MB.

The N3/SL25 Plus has an enhanced parallel port, an RS-232C serial port, a PS/2-style external keyboard/mouse port, and an external monitor port. Expected to be available in June, the system includes a 1.44MB 3 1/2-inch floppy drive and either an 80MB ($2,999) or 120MB ($3,399) hard drive.

The N3/SL25 Plus is shipped with MS DOS 5.0, Microsoft Windows, Microsoft Works for Windows, and ASW-1210 SCSI Manager software. Leading Edge is at 117 Flanders Road, Westborough, MA 01581. Telephone 508/836-4800.

Lotus President Jim Manzi to Keynote Electro/92



Jim Manzi, President and CEO of Lotus Development Corp. (Cambridge, Mass.), will discuss "Networks and Mobile Users: Personal Computing in the '90s" in the keynote speech for Electro/92, to be held at the Hynes Convention Center, Boston, May 12-14. Manzi's keynote address will take place at a noon luncheon on Tuesday, May 12.

In his address, Manzi will discuss key trends and issues surrounding what he calls the "second revolution" in personal computing—the rapid growth of networks and the boom in laptops and palmtops. Manzi will also examine why PCs have *not* improved productivity.

Electro/92, a conference and exhibition for design, test and production engineers and managers, will feature more than 800 exhibits, 59 technical sessions, a set of short courses and seminars, and other special events.

Tickets to the Keynote Luncheon cost $25. For conference pricing and other information, call the conference producer, Electronic Conventions Management (Los Angeles), at 800/877-2668.

Datamedia Debuts Security Product for Laptops

Datamedia Corp. (Nashua, N.H.) has announced a computer security product designed for users of mobile laptops and notebooks, that also offers low-end, single-user PC security.

SECUREcard/100 utilizes a scheme identical to the method used to protect automated teller machines (ATMs): "something known [a password] and something possessed [a token]."

SECUREcard/100 uses a standard 3 1/2-inch diskette that is specifically prepared as an access token when the software is initially installed. To access a system, the user must have the SECUREdisk token—which is inserted in the diskette drive at system boot time — and know a password.

The SECUREdisk token is prepared using a proprietary scheme said to prevent duplication of the disk by normal DOS COPY commands. SECUREcard/100 ships with a utility called SECRDISK that allows for duplication if the original disk is lost or damaged. A PC that is lost or stolen remains unusable as long as the SECUREdisk is not with the PC, and as long as the password remains a secret.

The product also allows data encryption, including selective encryption, as well as a screen blanker and keyboard locking capability. SECUREcard/100 costs $95 from Datamedia Corp., 20 Trafalgar Square, Nashua, NH 03063. Telephone 603/886-1570.

RISO Introduces PC-Based Document Processing System

RISO, Inc. (Danvers, Mass.) has introduced the RC Series Publisher, a PC-based document processing system offering high-speed printing, input scanning, optical character recognition (OCR) and stand-alone copy/duplicating capabilities.

The RC Series Publisher is aimed at businesses that must produce large quantities of forms, handbooks, reports, bulletins, training materials and other printed output. Priced at under $18,000, the system is said to be comparable to offset printing setups in the $250,000 range.

The product comprises RISO's 130-page-per-minute Risograph digital duplicator and an IBM PC and/or Apple Macintosh PC interface that emulates the Hewlett-Packard LaserJet Series II & III and Apple LaserWriter II.

The Risograph's scanner captures text and graphic images from a variety of sources, allowing users to combine hard copy text, photographs and artwork with computer generated text and graphics.

Operating systems supported are DOS 3.3 and above and Macintosh operating system 6.0 and above. The system offers standard and optional interfaces: parallel, serial, RS-232C, serial RS-422, SCSI and AppleTalk. Retail prices range from $14,500 to $17,500, depending on options.

RISO, Inc. is located at 300 Rosewood Drive, Suite 210, Danvers, MA 01923. Telephone 508/777-7377.

Hitachi/NSA Announces Color Monitors for Windows

The Hitachi Group's Nissei Sangyo America (NSA), Ltd. (Waltham, Mass.), traditionally known as a supplier of high-end CAD/CAM graphics monitors, has introduced a new generation of multiscanning color monitors for Windows users.

"These products give Windows users high-quality display options that historically could only be found in the high-end CAD/CAM environment," said Kevin Bowler, assistant vice president of office automation at Hitachi/NSA. "They deliver sharp, distortion-free images on a small screen."

The 15-inch SuperScan 15 and the 17-inch SuperScan 17 low-emission monitors feature flat-screen, true-color displays, and are compatible with a range of graphics standards from VGA to XGA, and Apple Macintosh II.

The compact SuperScan 15 ($799) is suited for such Windows applications as business graphics, multitasking and multimedia, document storage and retrieval, and image processing. The unit's horizontal scanning frequency goes up to 58kHz for sharp-focus and high-quality images, and it can support resolutions up to 1,024x768 noninterlaced.

The SuperScan 17 ($1,495) is suited for Windows users who also work in CAD/CAM/CAE. Supporting resolutions up to 1,280x1,024, SuperScan 17 provides a horizontal scan rate of 64kHz and a vertical rate of 120Hz for fast refresh rates and sharp and steady images.

Hitachi/NSA's Office Automation Group is headquartered at 800 South Street, Waltham, MA 02154. Telephone 617/893-5700.

DEC Buys Fast-Growing 800-Software

Digital Equipment Corp., the Massachusetts-based minicomputer giant, has signed a letter of intent to acquire Berkeley-based 800-Software, a ten-year-old distributor of personal computer software which last year boasted sales of $77 million. Terms of the sale price are not available.

The two companies began discussions last fall and expect the sale to be officially completed by June. According to 800-Software co-founder and President Steve Brown, DEC initiated the acquisition talks after being a customer of 800-Software, which has provided technical support services to some of DEC's PC customers. "The acquistion gives DEC a way to sell all the non-Digital products to their customers through a one-stop shopping source and gets them a share of the fast growing PC software business," said Brown. "We expect to gain a lot from the technical expertise and resources DEC has in the area of electronic software distribution, and their large Fortune 1000 customer base."

With the sale, 800-Software becomes a wholly owned independent subsidiary of DEC. No change in management or personnel in general is planned, however Brown said DEC's financial resources will allow 800-Software to expand more quickly into Canada and internationally than it had planned.

800-Software is a privately held company founded in 1982 that has been consistently profitable, according to Brown. "Right now we're on pace to exceed our goal of $110 million in sales for 1992."

— *David Needle*

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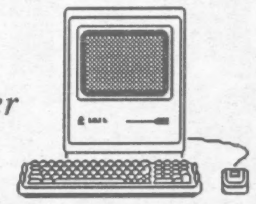

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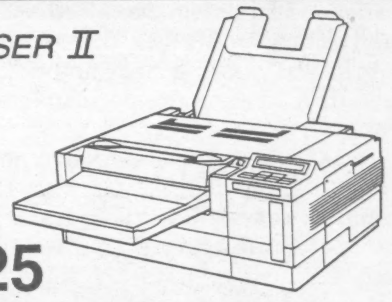

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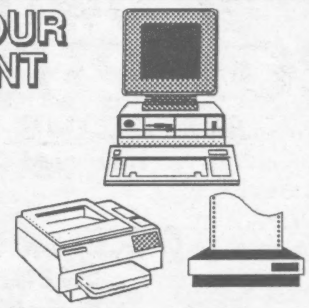

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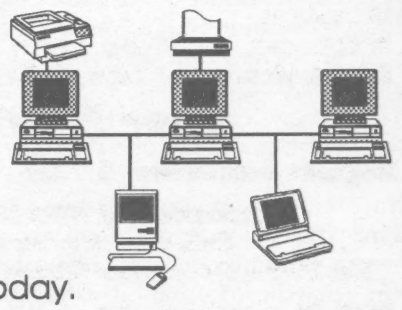

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By Marguerite Zientara

Youth Prevails

In the "They Sure Are Making Them Young These Days" category, we have 23-year-old Gary Hoffstein running the show — very effectively — at Harvard Info Systems, our "Dealer Spotlight" subject this month (see page 19). As the General Manager, Hoffstein manages the salespeople and service technicians, and generally makes sure things are running smoothly.

If you think he's young now, get this — he started with the company six years ago, when he was just 17. At that time, the company was somewhat smaller and Hoffstein was hired as the (only) technician. He was "discovered" when he was working for a Cambridge-based firm, by veteran salesman Larry Kenney.

"I was looking for someone to help us out," Kenney recalls. "Gary has the nimble fingers on the keyboard, and he has determination." Naturally, Hoffstein was still in school, and worked part-time for years, in sales and as a technician. He now has a degree in Computer Information Systems (half business and half programming) from Western New England College.

Hoffstein, who has been playing with computers since he was 10 (that was in 1979), is a technical whiz himself. "Gary's had experience with all the different software packages," Kenney notes, "so if a customer needs help with, say, AccPac, Gary can get into the program and help them. Or if a customer wants a program revised, Gary can help revise it."

Here's A Book You May Want to Keep Next to Your PC

"The day arrives when we push that button on the panel and the prompt 'C:>' or that user-friendly menu that was installed so many months ago does not appear. After trying 'CTRL-ALT-DEL' a few times, sheer panic sets in. Your eyeballs roll over like dollar signs on a five-column slot machine while you consider your repair bill."

The previous paragraph is from the introduction to *The PC Data Handbook: Specifications for Maintenance, Repair and Upgrade of the IBM PC, PS/2 and Compatibles*, by Southborough, Mass.-based engineer, consultant and inventor Stanley Shell.

The book will not convert the reader into a service engineer or a PC repairman, Shell explains. "If you're not a techie, it will help you generate a coherent explanation of what went wrong when the system crashed," he writes, adding that the information in the book "has been extracted from a vast collection of documentation that never seems to be at hand when you need it."

This 359-page soft-cover book, filled with tables and figures, invites the reader to, first of all, systematically complete a component chart for each computer system owned (Chapter 1). Such a chart is something most computer users have wished they had at one time or another.

Chapter 2 describes a first-echelon maintenance procedure to be performed when your PC will not boot. There are 12 steps to perform "at least twice" before considering the removal of the PC's cover. If you reach the point of removing the cover, Shell lists 25 steps you can follow before calling an expert. "Don't fool with things you don't understand," he warns. "It is possible to make a problem worse."

The bulk of the book is filled with detailed information on the components of a computer and how each one works, as well as general advice on how to care for your machine and its accessories. Some sample chapter titles (there are 48 in all): Logical and Physical Devices; Using the User ROM; Data Transfer Links and Networks; Line and Box Drawing on the Monitor and Printer; Switch Settings on the PC and XT; DOS Commands.

The PC Data Handbook costs $29.95 from QED Technical Publishing Group, 170 Linden Street, P.O. Box 82-181, Wellesley, MA 02181.

Trace Your Family Tree, The Easy Way

Tracing one's family tree can be a daunting task of record-keeping — tracking multi-generational marriages, births and/or adoptions, deaths, divorces and remarriages. One man has developed another tool to help with the job: a software program to impose order on the chaos.

Michael Royce, president of RoyceFamily Software Co. (Webster, N.H.), has introduced the RFGENE package, which offers a series of user-friendly screens to guide the family researcher through traditional "tree structure" diagrams. Each diagram simultaneously displays four generations and enlarges into individual biographical sketches, which may be as detailed as desired.

Five generations of the Royce family. Includes Royce's father (wearing glasses), grandmother, children, grandchildren. Michael Royce is way in the back.

Each file may contain as many as 32,765 such records, or as limited by the user's available disk space. RFGENE supports IBM PC and compatible computers and CGA, EGA or VGA color monitors, or Hercules Monochrome. The software requires 150K of RAM. A hard drive is recommended, but the software can be run on dual floppy units.

"My aunt has been into genealogy for years," Royce says. "She was using a software package that was very difficult to use and she was always complaining about it. So I looked at it, then examined the other genealogy software out there. I took the best from all the packages I saw and added some of my own ideas." After a year of development work, Royce came up with RFGENE.

Users seem to agree that the package is user-friendly. "People tell me they stay up until 2 or 3 in the morning using it, and they don't get their housework done," Royce laughs. "Not only are they able to put the information about their families on a computer, but also they're finding that people who have been out of touch start writing letters to get information, and they're developing relationships that had been dead for years."

With 15 years of mainframe programming experience under his belt, Michael Royce is a consultant who writes custom business software under the RoyceFamily Software Company name. Designed for family or professional genealogical research, RFGENE costs $99 from RoyceFamily Software, RFD 7, Box 359, Webster, NH 03303. Telephone 603/746-5068.

Shop by Mail, Phone or Fax

The catalog of catalogs (literally) is now available to help you sort out many of the sources of discount computers, software, supplies and accessories. *Computer Catalogs* is a 114-page paperback that describes more than 300 computer mail-order catalogs (11 are in Canada), and gives 800 numbers, fax ordering numbers, credit card information, and contact information.

Besides the full alphabetical listing of companies, there is a quick index with just the company name and phone number, as well as an index for the following product categories: Computers, Supplies & Accessories; Software; Furniture/Workstations; Forms & Supplies; Networking/Connectivity Productivity Products; Maintenance/Power Protection Products; and Programming.

To get a copy, send $12.95 (plus $2.50 for shipping) to Todd Publications, Box 301, West Nyack, NY 10994. Credit card orders are available by calling 800/747-1056.

Save Money by Registering Now for Summer Computer Institute

If you sign up for the Boston Computer Society's (BCS) Summer Computer Institute before June 1, you can save $50 on the cost of each course, the price of which jumps from $550 to $600 on that date.

The Institute, a series of intensive week-long workshops, offers the following courses this year: Getting Started (July 12-17); Business Solutions (July 19-24); Desktop Publishing (July 26-31); and Desktop Illustration (August 2-7).

Topics range from basic to advanced levels, on both IBM PC and Apple Macintosh, and students are encouraged to spend their free time in one of three computer labs that are open from 8 a.m. to late evening. The Institute features a high ratio of staff to students and has a software library of over 100 titles.

The Summer Computer Institute is held on the campus of Lasell Junior College in Newton, Mass., to which you can either commute daily or remain on campus for the week. To participate in the Institute, you must be a BCS member ($39/year). You may reserve your place by submitting a non-refundable deposit of $25 per course. For more information, call SCI Director Sue Wood at 617/641-2848.

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Marguerite Zientara is the author of ***The History of Computing,*** *copyright CW Communications, Inc., 1981; and* ***Women, Technology & Power,*** *Amacom Books, New York, 1987.*

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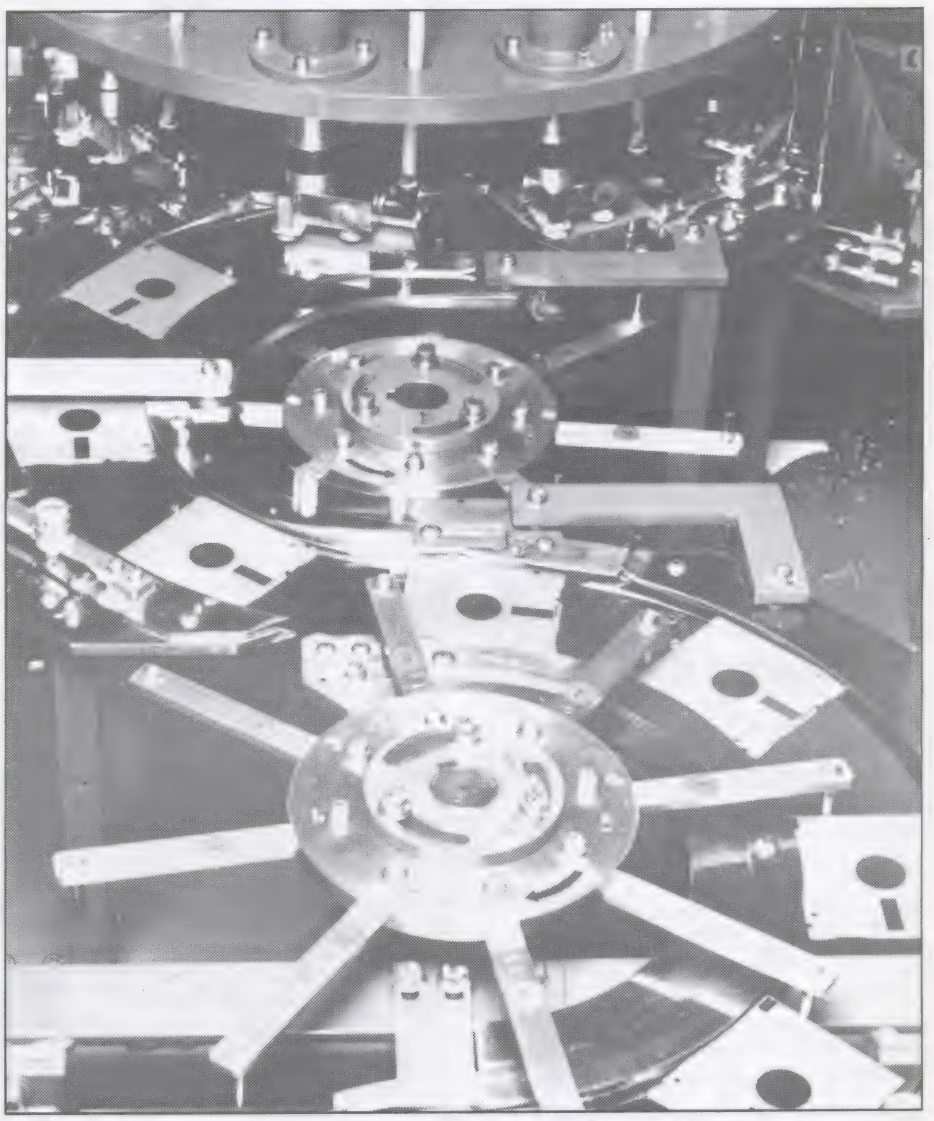
FEATURE

Kao Wants You to Remember Its Name

[Hint: It Rhymes With "Now"]

By Marguerite Zientara



Kao diskettes are produced at the company's state-of-the-art, automated manufacturing facilities. Human hands do not touch the diskettes at any stage of production.

Until recently, Kao Infosystems Co. (Plymouth, Mass.) has remained a well-kept secret, even though it's been churning out millions of high-quality diskettes every month to become the number one diskette supplier in the OEM (original equipment manufacturer) marketplace, and the number two supplier to the U.S. Government.

Perhaps you've heard of the number one government supplier: 3M. Of course you have, but you've probably never heard of Kao. If Kao has its way, that will soon change and you'll be walking into Lechmere or Staples or your favorite computer store looking for Kao disks instead of 3M or Sony or Maxell.

Soon after this article appears, Kao will make an impressive (but at press time, still secret) announcement at a ribbon-cutting ceremony May 8 marking the opening of its expanded manufacturing facilities in Plymouth. No less a dignitary than the Governor of Massachusetts, Hon. William Weld, will be on hand to help celebrate the occasion.

Governor Weld Likes Kao

Kao and Weld go back a ways — at least to January of this year, when the Weld administration issued the state's very first Tactical Training Initiative (TTI) grant to Kao, in the amount of $47,000. A total of 53 companies have applied for the $1.1 million available in the training reserve fund.

The TTI, founded to promote workforce expansion in the commonwealth, designates up to $50,000 per employer to finance skills training and education for new hires or current employees. The funds are not given directly to companies, but are actually given to a vendor administering the training.

Kao received the award for a couple of reasons. First, the company successfully demonstrated that its proposed

The Weld administration issued the state's very first Tactical Training Initiative grant to Kao to finance skills training and education for new hires or current employees.

training programs would result in additional jobs. Specifically, Kao installed an additional production line, creating 28 new job openings.

Second, Kao has proven its commitment to Massachusetts by investing $125 million in the state since it began operations in Plymouth in 1988. With Massachusetts in an economic fight for its life, such support is nothing to sneeze at. Furthermore, Kao reinvests its revenues locally in its plant and equipment on an ongoing basis.

Who Is Kao?

Where does all this money come from, anyway? The short answer is... Japan. Kao Infosystems is a Japanese-owned company run by Americans.

Here is the hierarchy: Kao Infosystems is a wholly-owned subsidiary of Kao Corporation of America (KCOA), a $450 million entity involved in consumer products (via The Andrew Jergens Co. and others), chemical products (High Point Chemical Co.), and magnetic media (Kao Infosystems and its Canadian sister company, Kao-Didak). KCOA, in turn, is a wholly-owned subsidiary of Kao Corporation of Japan, a $5 billion conglomerate, established in 1887.

You may be wondering how a $5 billion Japanese conglomerate happened to locate a subsidiary on Cape Cod. The answer lies in the company history of an enterprise named Sentinel Technologies, which was a division of Packaging Industries (Hyannis, Mass.).

Sentinel started out as a maker of 8-inch and 5 1/4-inch disk jackets, selling to computer manufacturers. The company eventually decided to manufacture the entire diskette and, by the mid-1980s, had become the fifth largest seller of diskettes in the world.

Sentinel Seeks a White Knight

The competition against global giants like Sony and Maxell was very stiff, however, and Sentinel's resources were limited. In order to compete, Sentinel needed an infusion of capital. The question was how to get it. The company considered several options, including floating an industrial revenue bond, going public, or being acquired.

Exploring one avenue, Sentinel approached a number of potential acquirers. "The more we saw about Kao, the more manifest this whole situation became," recalls John Depuy, Kao's director of marketing and one of Sentinel's first employees. "Sentinel was having difficulty competing and would have had a difficult future, at best."

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Digital Imaging	May 7	9:00 am-12:00 pm	Computer Town, Inc.
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Macintosh Broadcast Video	May 19	9:30 am-11:30 am	Crimson Tech and Newtek
Macintosh Broadcast Video	May 19	2:00 pm-4:00 pm	Crimson Tech and Newtek
Introduction to Desktop Publishing on the Macintosh	May 21	9:30 am-11:30 am	Tech Computer's Desktop Publishing Center
Introduction to Desktop Publishing on the Macintosh	May 21	1:00 pm-3:00 pm	Tech Computer's Desktop Publishing Center
SPECIAL TOPICS			
CPAs: Link Macintosh Accounting Data to Lotus® 1-2-3®	May 12	4:00 pm-6:00 pm	Personal Computer Resources
PRODUCTIVITY			
Macintosh Productivity in a DOS Environment	May 5	9:00 am-12:00 pm	Corporate Software and Claris Corporation
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Salesforce Automation	May 8	9:00 am-12:00 pm	ComputerLand
Salesforce Automation	May 8	1:30 pm-4:30 pm	ComputerLand
Macintosh Database Management	May 13	2:00 pm-4:00 pm	The Support Group
Portable Presentations: Taking Your Show on the Road	May 14	2:00 pm-4:00 pm	Crimson Tech and Aldus Corporation
Advanced Decision Support and the Credit Function	May 22	10:00 am-4:00 pm	S.R. Research
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FROM PREVIOUS PAGE

In 1988, Kao acquired Sentinel, and two years later Kao Infosystems had become the leader in the OEM disk market. In that market, where Kao holds a 23.5% majority share, Kao's major customers are Lotus, Microsoft, Apple, Wang, Hewlett-Packard, Tandy, Zenith, Aldus, Central Point and Xerox.

"Our situation has been tremendous as part of Kao," Depuy says. "We have a thriving, healthy, very successful company today, whereas if Sentinel had continued to exist as Sentinel, it would have had a very tenuous future."

The acquisition itself, he says, went smoothly. "It was a perfect study, in my opinion, of the right way for an acquisition to occur because Kao had no infrastructure here. There was no redundancy," Depuy notes. "If today we were to acquire another company, we would have two marketing guys, two national sales managers, and two purchasing agents. We'd have redundancy that simply wasn't needed."

But because of the perfect fit in this case, no one was laid off and, in fact, Kao has created new employment. Three of Kao's top management are former Sentinel executives — John Depuy, as well as President and CEO Peter McGuirk, and Executive Vice President and General Manager Jack Rose.

East Is East and West Is West And...

So, what's it like for Americans working at a Japanese company in the United States? "There was a lot of animosity up front," Depuy admits, "and people were quite concerned over the whole cultural clash, but it just hasn't been much of an issue."

Kao's director of marketing, John Depuy

In fact, workers seem to have taken nicely to Kao's Japanese-inspired open office environment, employee involvement and teamwork philosophy, and the employment-for-life (almost) attitude. "The company is very, very committed to preserving the jobs of all the people," Depuy says, "and I believe much more so than the typical American company.

"Nothing is guaranteed," he acknowledges. "I mean, IBM and AT&T are getting rid of people, but you can see every day strong efforts being made to make people more efficient, make the company more efficient, and provide for jobs."

There is also a high degree of involvement on the part of top management, both American and visiting Japanese. "They're involved not only in talking to managers, but they walk out on the [factory] floor," Depuy notes.

"They look at how the machinery runs. They want to see what kind of promotions we're running in marketing. Their degree of honest interest in the details of what goes on is, I think, far, far different from American companies."

What executives and visitors see on the factory floor is a highly automated, spotlessly clean, and amazingly efficient manufacturing operation. In fact, there aren't that many people readily visible, although small, beeping robots are easy to find. Workers are highly trained, many are college educated, and they are essentially overseers of a process rather than the traditional manual laborers of yesterday's factories.

Exceeding Industry Standards

Kao's top position in the OEM market means it has had to satisfy the most demanding customers in the computer industry — the software and hardware vendors whose disks must be perfect.

Toward that end, Kao conducts more than three times the average number of quality checks. Each Kao product must pass more than 100 quality checks and certification points (the industry average is 30) during assembly, enabling the company to guarantee 100-percent error-free operation over the life of each disk it produces.

Kao also requires that its diskettes perform at nearly twice the industry standard clipping levels (a measurement of diskette signal intensity and a widely accepted measure of disk quality). Kao diskettes are tested at 70 percent, versus the industry standard of 45 percent.

While some manufacturers quality-test a sample of diskettes, Kao tests each component of each diskette throughout the entire production process. This not only allows for greater control over product quality and consistency, but also enables Kao to monitor variances in the manufacturing process itself.

Now, Kao wants to become a recognizable brand name. "That was Kao's strategy all along," explains Dorin Thibault, Kao's marketing communi-

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cations coordinator. "The idea was to reach the highest volume and the most critical customers first, in the OEM market, then broaden that out to reach the end users."

How does Kao expect to make the transition? "Retail is certainly a different animal from the OEM market and the business-to-business market," Thibault acknowledges, "but we just want to apply the same fundamentals — focus on a quality product, focus on giving the customer excellent value — and offer it through a whole new distribution channel."

Enter, Maxell's Former National Sales Manager

A major step in Kao's plan was to lure Maxell's national sales manager to Kao. Larry Anderson, with 12 years experience in the diskette business, has also held key positions selling branded products at 3M and Dysan. Anderson, who came on board in January, is based in Denver.

Anderson agrees with most analysts' assessments of Kao's plan to break into the brand name game. "It's not easy," he acknowledges, "but I'm very optimistic because we've had some immediate successes."

Those successes include signing up as retail partners the national retail chains of Circuit City, Computerland Express, Arvey's and Adray's. More familiar to New England ears would be such targets as Lechmere and Staples, which Kao is "definitely" pursuing.

"We're first targeting retail accounts that want to work with us as partners," Anderson explains. "We want to make sure they'll promote us heavily, and not just rely on the product selling itself off the shelf. We need stores that have salespeople who can explain who Kao is and the quality we represent."

To make Kao attractive to resellers, the company is offering dealers higher margins. As part of its retail promotion kick-off, Kao is letting resellers purchase preformatted 5 1/4-inch diskettes — in both double and high-density capacities — at no additional charge. As an added incentive, resellers will receive a 10-percent discount on high-density 5 1/4-inch diskettes.

Kao's reseller support program will target Fortune 500 companies, medium and small businesses, and PC users. The program includes cooperative advertising, direct mailings, trade show participation and product training programs. Kao will announce a full-scale retail program later this year.

Meanwhile, if you want to help spur Massachusetts' economic recovery just a little, remember the name Kao the next time you're shopping for diskettes. After all, they're good enough for Lotus and Microsoft.

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Marguerite Zientara is the author of ***The History of Computing****, copyright CW Communications, Inc., 1981; and* ***Women, Technology & Power****, Amacom Books, New York, 1987.*

Kao's Product Line

- 3 1/2-inch micro diskettes, available in standard and high densities, including the advanced 4MB extra-density diskette.
- 5 1/4-inch mini-diskettes, available in standard and high densities, with capacities up to 1.6MB.
- 4mm digital audio tape cartridges (DAT), with capacities from 1.3 gigabytes to 4 gigabytes of data.
- 1/4-inch data cartridges, with capacities ranging from 40MB to more than 1 gigabyte, for high-end computer systems.
- Formatted, color and customized diskettes.
- Future products will include ever higher capacity diskettes and optical disk technology.

Kao's Plymouth, Mass. diskette facility has a production capacity of more than 250 million 3 1/2-inch and 5 1/4-inch diskettes per year. Worldwide, Kao's four manufacturing facilities can create more than 4.3 million diskettes per year. Kao Infosystems Company is at 40 Grissom Road, Plymouth, MA 02360. Telephone 508/747-5520.

— Marguerite Zientara

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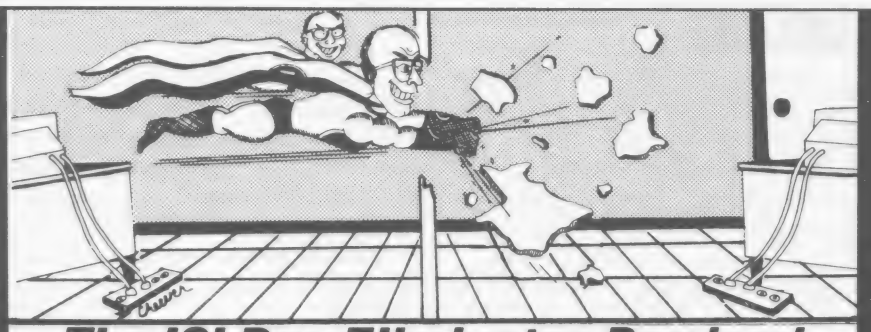

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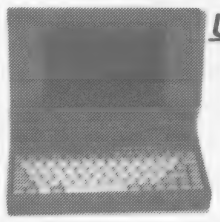

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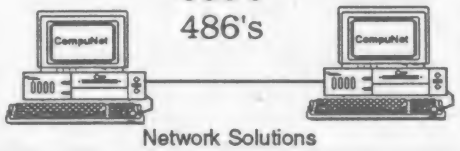

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By Michael Dortch

Wireless "Wiring," Convenient Printing And Your Networks

Symbol Technologies' wearable computer includes a bar code scanner built into the back of a glove, a forearm-mounted keyboard/display unit, a waist-mounted portable DOS PC and a wireless link to a central processor.

As Sam Adicoff's recent "Network Consultant" columns (March & April, 1992) here have made clear, some of the most mundane networking issues can be some of the most frustrating. One of these is network cabling, which Sam has addressed admirably. Another is network printing. Herewith, some thoughts and suggestions on both.

Network Cabling: Why Not Do Without?

One alternative to traditional network cabling that is growing in appeal is wireless networking. Wireless LANs today are typically based on infrared light, like television remote controls, or on radio technologies similar to those used for cellular telephony. They all offer basically the same advantages — network connections that are easier and sometimes less expensive to install, move and change than those based on traditional network cabling. However, wireless LANs have their drawbacks. Primary among these are low speeds and limited compatibility with the networks users already have. Vendors are working feverishly to overcome both obstacles, with promising results. Auburn, Mass.-based BICC Communications' InfraLAN already operates at four megabits per second, and is compatible with LANs based on IBM's Token Ring topology. Since there are both 4-and 16-Mbit/sec token ring LANs, BICC is already working on a 16-Mbit/sec version of InfraLAN. In fact, there are rumors that BICC is also working on a wireless LAN that operates at 100 Mbit/sec, the same speed as LANs based on fiber-optic cable and the Fiber Distributed Data Interface or FDDI. BICC's InfraLAN uses line-of-sight wireless connections, which means communicating devices must be able to "see" each other clearly, like most home remote controls.

In contrast, the infrared technology used by Photonics Corp. of Sunnyvale, Calif. is diffuse, meaning that light can reach its destination by being bounced

off of walls, floors or ceilings. This can offer greater flexibility in some cases. Photonics, first discussed in this space more than a year ago, originally marketed a system called PhotoLink, which involved wireless transmitter/receivers connected to PCs, file servers and the like. The company has shifted focus, and is now concentrating on developing wireless technology it can license to other manufacturers. Photonics has announced the first licensee of its Infrared Transceiver for portable computers: TA Triumph-Adler AG, a German company that's part of Italy's Olivetti and a popular computer vendor in Europe. Triumph-Adler plans to add wireless connectivity to forthcoming notebook and laptop computers, and will also license software developed by Photonics that provides compatibility with version 3.x of Novell Inc.'s NetWare network operating system. Photonics' technology now operates at only one megabit per second, but an official there said that the company is already working on faster offerings and greater connectivity with traditionally-cabled LANs. The company plans to announce new products and more licensees within the next year, the official said. It seems likely that one licensee will be Apple Computer Inc. Apple provided most of Photonics' start-up capital, beta-tested its first offerings and now employs one of its founders. Apple is also very interested in the whole concept of "ad hoc networking," which I'll discuss later. Motorola Inc. also offers wireless LAN offerings known collectively as Altair and based on radio transmission techniques like those that support cellular telephones. The company recently increased the capacities of its systems, and introduced a wireless bridge for linking Ethernet LANs that operates at 3.3 Mbit/sec, compared with Ethernet's typical 10-Mbit/sec speed over traditional wiring.

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What's Next, Computers You Can Wear?

Taking wireless networking to perhaps its current logical extreme, Symbol Technologies Inc. of Bohemia, N.Y. recently introduced the Symbol Application Productivity System (APS) 3395, an unromantic name for a system that includes a computer you wear. The wearable computer includes a bar code scanner built into the back of a glove, a forearm-mounted keyboard/display unit, a waist-mounted portable DOS PC and a wireless link to a central processor. It's designed for data collection, but I expect to see some overworked computing journalists using it at trade shows any day now.

What the Heck's an Ad Hoc Network, Anyway??

It's just what it sounds like — a network that allows you full access to all authorized network resources from wherever you are, on just about whatever equipment you happen to have, whether there's a wire present or not. Wireless networking is interesting beyond its ability to cut down on cabling problems, because of its eventual role in such networks, which some users are already beginning to build. A bunch of other technological issues remain to be resolved before cabled and wireless networks can be fully integrated into ad hoc networks. For now, however,

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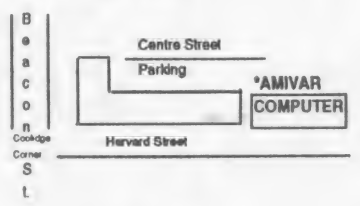

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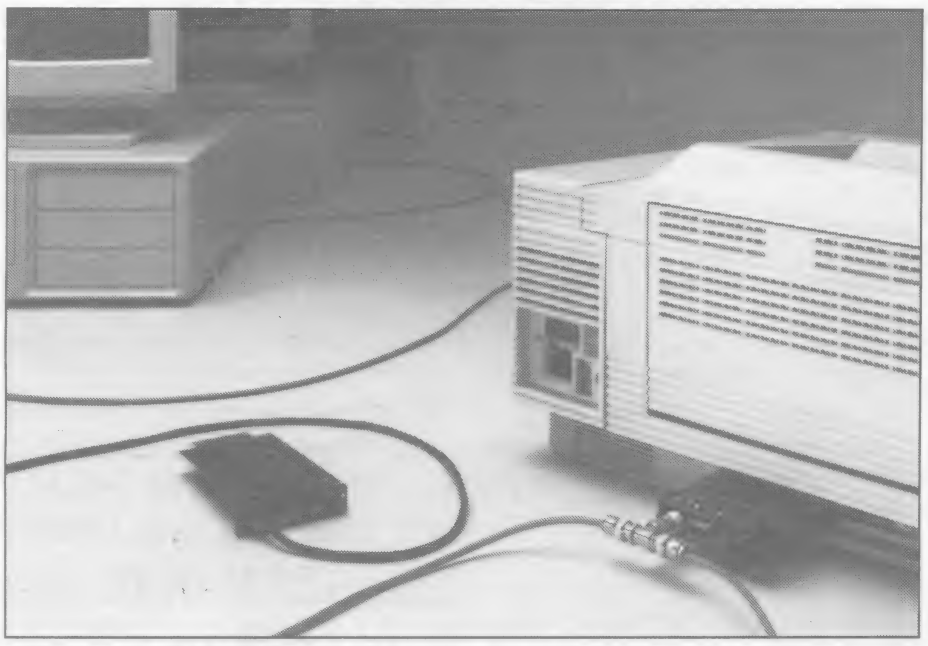
FROM PREVIOUS PAGE
the potential cost and flexibility advantages of wireless networking have gotten many users to overlook its relatively low speeds, which are getting faster all the time.

ASP's JetLAN: Printers to the People, Servers In the Closet

Speaking of connections when and where you want them, if you have a network, you probably have to walk some distance to get to a laser printer, which is probably connected to a file server or some other PC acting as a dedicated print server. The placement, distribution and management of printers is one of the most bedeviling network problems after cabling's out of the way. Enter ASP Computer Products Inc., which markets a variety of printer-sharing solutions. Their latest is JetLAN, which is a board that plugs into a Hewlett-Packard LaserJet printer and allows you to connect that printer to any point on your Ethernet-based NetWare LAN. This can bring you several advantages. If you're a user, it means printers can be moved around to make them more convenient for you and your colleagues. If you're a network manager, you can separate printers from servers, so you can put all your servers in a central, easy-to-secure location without making users traipse back and forth between the server room and their desks. JetLAN lets you do all this without dedicating a PC to print service, and without slowing down users' PCs by making them run print server software along with users' local and network applications. Instead, each JetLAN board includes its own on-board chips which contain all the necessary software and memory for print service on a network. Thanks to these chips and utility software included with each board, JetLAN supports both the PCL and PostScript page description languages. It also provides monitoring and configuration functions in addition to those included with NetWare. On-board LEDs show the status of each JetLAN and its connections as well. Perhaps best of all, you don't need to install any additional software on your NetWare servers to use JetLAN. The board is installed with NetWare's PConsole function, with which all NetWare administrators are already equipped and familiar. No additional power outlet is required, either — the JetLAN is powered by the printer into which it's plugged. JetLAN is available for LANs based on either thin coaxial cabling or 10Base-T twisted pair wiring. Such a "plug-and-play" print server, priced at $595, is a very attractive alternative to other print servers, and can make laser printing more accessible and affordable to NetWare users.



ASP's JetLAN board plugs into a Hewlett-Packard LaserJet printer and allows users to connect the printer to any point on an Ethernet-based NetWare LAN.

Tying It All Together

Wireless networks and put-'em-anywhere print servers both address similar needs. One is the need to put network resources where users can get to them easily. Another is the need to distribute those resources while maintaining consolidated security and control over things like network servers. Network products and user strategies that combine distributed resources with consolidated management appear to be best-suited for the future, which is likely to include more and more mobile, transient and ad hoc network connections.

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Michael Dortch is the author of Sybex Inc.'s ***The ABCs of Local Area Networks****, has been a writer and consultant for network vendors and users for more than 13 years, and is still often as confused as you are. The opinions expressed herein are entirely his own.*

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Interviewed by Marguerite Zientara

"We don't want the customer to be forced into buying something that's not going to be adequate for future use."

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Type of Sales:	Storefront and direct corporate sales
Hours:	Mon.-Fri., 9 a.m-6 p.m.; Sat., 10 a.m.-4 p.m. (evening hours by appointment)
Established:	1982
General Manager:	Gary David Hoffstein
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Software:	Novell Gold Authorized; all major business software.
Specialty:	Networking, office automation.
Service:	Six technicians, 90-day free telephone support, on-site and carry-in service contracts available. For networks, 90-day on-site service is included. Maintenance contracts available. Remote support via Carbon Copy available.
Warranty:	One-year parts and labor carry-in service. Optional on-site service available. Maintenance contracts available.

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Harvard Info Systems General Manager Gary Hoffstein (left) and Salesman Larry Kenney

Harvard Info Systems is a company that evolved from the electronics industry into the computer arena about 10 years ago. "Basically, there's about 40 years worth of electronics wrapped up in sales here," says General Manager Gary Hoffstein. Today, the company is a value-added reseller (VAR) and systems integrator, specializing in networking and office automation, that works hard to stay on the cutting edge of technology. Ninety percent of its business is in direct corporate sales, but single users are warmly welcomed, too. Harvard Info Systems recently moved to its present, larger facility after six years at another Waltham location. Its offices include a conference room, a 2,000-square-foot showroom and a 3,000-square-foot service area. *Computer Currents* spoke recently with General Manager Gary Hoffstein and veteran salesman Larry Kenney.

Are most of your customers large corporate accounts?

Kenney: I'd say the majority are. We're working with some startup companies also. But we deal with Harvard, MIT, W.R. Grace, Millipore, General Electric, Continental Cablevision, Sterling Bank, Arthur D. Little, a lot of the large corporations. In 10 years, I feel that we've touched base with most major accounts in the area.

What is your strategy to help customers find solutions to their problems?

Kenney: It's really a matter of qualifying a customer. A customer says, "I want a computer." What kind of computer? What kind of hard drive? Do they want a color or monochrome monitor? Do they need a printer? What applications are they going to be using?

Hoffstein: Before we sell any product, we ask, "What do you want to do with it today? What do you want to do with it in the future? What do you want to do with it years from now?" Because we don't want them to be forced into buying something that's not going to be adequate for future use.

You say that service contracts and maintenance contracts are among your strengths. What are some of the trends in those areas today?

Kenney: A lot of people are so-called downsizing today — they're trying to move out from underneath their mainframes because the mainframes can cost them $3,000 to $4,000 a month just for maintenance alone. In some instances they can afford to buy two 386 computers and eventually replace that mainframe. That's one area where we can help people.

Hoffstein: The majority of our larger corporate accounts have some type of maintenance contract with us so that the technicians are there within 24 hours if they have a problem, and normally they arrive the same day. Our technicians are all equipped with cellular phones and beepers, so we can reach them 24 hours a day. I've had technicians at, say, the bank until 3 or 4 in the morning fixing a problem. The technicians are very devoted individuals.

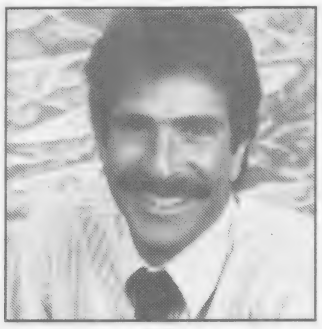
As far as your being on the cutting edge of technology, can you give me an example of Harvard Info Systems' farsightedness?

Kenney: In document storage and retrieval, we put an optical storage system together that was available starting three years ago. We thought we'd get into the leading edge of the technology, and we had a system that sold for $25,000. We spent a lot of time developing it, and it's a great product — it's what the insurance companies really need. But we found out they weren't willing to spend the money. Now Wang just introduced their system about six months ago, and the entry level product is $120,000.

Hoffstein: The basic idea behind the product is that you can get rid of a filing cabinet. You can search by key words, scan in documents and store them to WORM (write-once/read-many) media. We still show this in our showroom.

What would you say is your greatest business challenge?

Kenney: Just keeping ahead of the technology so that we're able to help our customers, I think that's the biggest challenge. We have to have an idea of a broad spectrum of products, so when the questions are thrown at us, we know what to do. We know where to look. If the customer needs a product, we hope we can provide the product for them.



By Rick Altman

Five Reasons To Switch to Ventura 4.0...

... And Five Reasons Not To

Since Autumn 1989, one question has been persistently on the minds of Ventura Publisher users. Ever since it was announced that Ventura would become part of "that new" platform, this question has been addressed more than any other: Should I switch to the Windows version of Ventura?

As unbelievable as it may seem, that question is no less prevalent today than it was last year and even the year before — six months before Windows 3.0 was officially announced. And today, there is still no clear answer.

You may think that this article will answer that $64,000 question. Probably not. And you may think that you'll discover the answer when Ventura 4.0 gets some mileage under its belt. Again, probably not. WordPerfect users face this same dilemma with the Windows version of their word processor, but presently, Ventura users stand alone in the level of uncertainty they endure over which direction to take. To this day, a solid majority of the user base continues to use the GEM version.

What follows is an attempt to give some perspective to the new release, and to Ventura for Windows in general. As I write this, I am consumed by a sense of déja vù: I made remarkably similar statements a year ago concerning version 3.0.

Five Reasons to Switch to Version 4.0

1. New Editing Features: Finally, Ventura users have new features to explore, and without a doubt, they are worth exploring. What a pleasure it is to be able to conduct a search and replace operation without leaving the program. How nice to be able to spell check an entire document, frames, captions, and all, from within Ventura, without having to load an add-in, or convert text files to ASCII. If you have been longing for these two functions to be integrated into the program, then this is one of the strongest reasons to make the move. While these functions won't win awards for sheer brilliance, they are respectable performers, especially for brand new functions. Search and replace works on text strings as well as text attributes and paragraph tags — a feature that, if needed only once a month, might justify the upgrade by itself.

2. Object Linking: One of the sexiest features of Windows, Ventura 4.0 offers Object Linking & Embedding (OLE), the ability to link imported data with its source files, so that changes made to the source are instantly updated in Ventura. The classic example is the bar chart generated from an Excel worksheet and imported into Ventura 4.0. What happens when the data changes and the chart needs to be updated? If this were Lotus 1-2-3 and GEM Ventura, you would be required to make a trip out to 1-2-3, change the numbers, regenerate the

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graph, resave it, and reimport it into Ventura. That's a lot of re's.

With Ventura 4.0 and Excel or 1-2-3 for Windows, you can create a hot link to the chart. All you would have to do is open the chart in Excel or 1-2-3 and change the numbers. Before your very eyes, the chart in Ventura changes.

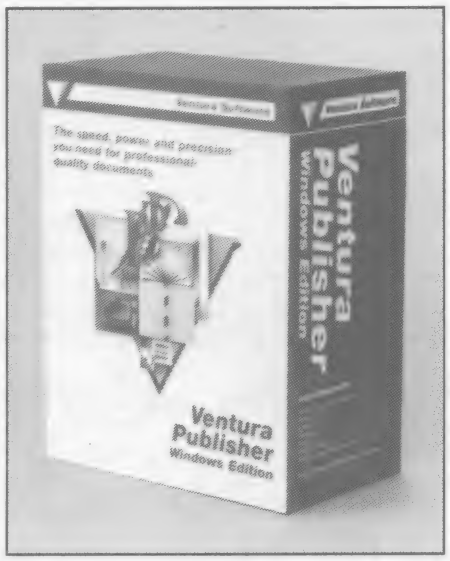
The reverse process is equally exciting, whereby a double-click on an imported graphic or text block in Ventura promptly launches the source program and loads the object. Edit, save, then quit, and you're back in Ventura, with the changes to the object already made.

These are not features to go ga-ga over just yet. Most users won't use them except for experimentation and exploration, especially given that only four programs can currently function as OLE servers to Ventura, Paintbrush and Micrografx Charisma being the other two. But as with the other new features, if you want them in Ventura, there's only one place you'll find them: version 4.0.

3. Tag Copying: While not new to version 4.0, the opportunity the Windows Clipboard provides to transfer paragraph tags from one chapter to another is potentially invaluable. Unlike with the GEM version, when you select a paragraph by clicking on it, the Edit/Copy command remains available. If you invoke it, you copy not the text of that paragraph, but its tag. As long as the tag is in the Clipboard, you can open another chapter and paste it in, formats and all. For the first time, you can take bits and pieces of style sheets and merge them into others. With Clipboard-specific programs like Scrapbook+, you can create libraries of tags and browse them in search of the right look for a particular element.

Tag copying is nothing short of sensational, if you are in need of such a service. Notice my careful qualifications here and with the previous two topics: You must ask yourself if these are functions that you would actually use or could imagine ever using. If not, their value carries little or no weight.

While tag copying is impressive, it remains semi-crippled by Ventura's sad inability to open a second document window during the same session. In order to copy a tag, you must close down the current chapter and open a second one. Contrary to the very philosophical core of Windows, you cannot open two Ventura chapters at once. For more on this topic, see Reason Not To #5.



Ventura Publisher 4.0 has its pros and cons, Altman says, and users will need to balance them to decide whether it's worth the switch.

4. Great Screen Fonts: No doubt about it, Ventura 4.0 kicks butt over GEM Ventura when it comes to screen rendering, thanks to programs like Adobe Type Manager and Bitstream Facelift. Both programs create screen fonts from the actual printer font outlines. Just as those fonts are scaled to any size at print time, so are they scaled to display type of any size on-screen.

ATM offers the further value of opening up Ventura to the world of PostScript Type 1 fonts. Any Type 1 font you have can be used with Ventura if you use ATM. Whether you bought it from a font manufacturer, downloaded it from CompuServe, or created it yourself with CorelDRAW, you can use it in Ventura with a minimum of fuss. Without question, ATM, Facelift, and the other good Windows font management programs fulfill the Windows promise that computing really can be fun.

For those with less demanding font requirements, the simple set of TrueType fonts that comes with Windows 3.1 provides very good screen and printer output with a low hassle quotient.

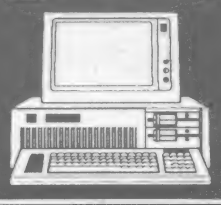
5. Improved Keyboard Access: Call me counter-culture, but in my view, one of Windows' best features is not its mouse-driven interface, but its keyboard-driven interface. I care less about its graphical prowess than I do its ability to navigate so well with the keyboard. Ditto for Ventura for Windows. All menus and dialog boxes can be reached with keyboard commands, as can many of the fields within dialog boxes. As far as I'm concerned, the less I need to use the mouse, the faster I can operate. My idea of a well-designed program is one that lets me perform all commands with the keyboard, requiring the mouse only for legitimate mouse-type activities, like moving elements around the page, cropping images, drawing objects, etc.

Ventura for Windows isn't there yet — in fact, it's a complete rewrite away from being there. But it's closer than GEM Ventura will ever be.

Bonus Reason — Print Improvements: Three features have been added to Ventura's print engine, and while not earth-shaking, they are worthy of mention. The first is your ability to tell Ventura to print or not print hidden pictures from the dialog box. You no

SEE NEXT PAGE

Computers a la Carte



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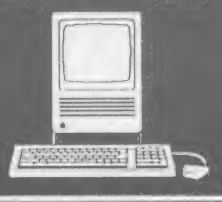

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longer have to wait until Ventura asks you, which, on a multi-chapter document, could be 30 minutes into the print job. The second is on-the-fly orientation-switching, allowing you to change between portrait and landscape printing without having to go through setup. The third is a rather curious and undocumented keystroke of Ctrl-H which accesses the Print dialog box directly. In addition, the Define Colors dialog box has received a major shot in the arm, offering full-palette color mixing and editing.

Speaking of color, there is a conspicuous absence from the Reasons To list: the Color extensions. However impressive the extensions are, their appeal is not likely to spread across a majority of Ventura users. And because it requires a separate purchase, it also requires a separate round of decision-making.

Five Reasons Not to Switch to Version 4.0

1. Compatibility: While Ventura Software has never guaranteed compatibility with previous versions of Ventura, it's always been possible. Because of the changes made to the color palettes of version 4.0, backward compatibility is now gone. If you load a version 4.0 style sheet into 3.0, you will probably crash, and if you somehow don't, the color assignments will be hopelessly muddled. Ventura Software has made mention of a utility that will reset 4.0 chapters to 3.0 specifications, but until released, using version 4.0 in concert with 3.0 users is a very dubious venture. You'll be able to read their chapters correctly, but as soon as you save, you essentially lock out your 3.0-using colleagues from working on the current version of the document.

2. Instability: Ready for a quiz? I'm going to say a word or phrase, and I want you to tell me the first thing that pops into your head. Ready?

Unrecoverable Application Error.

If you said Ventura for Windows, then you pass. Ventura deserves its reputation as one of the more ill-behaved Windows programs. Most Windows users have learned to marginally tolerate, and even laugh at, the frequency with which the fledgling Windows 3.0 crashes. Most Ventura for Windows users have had to endure worse. I wish had a dime for each of the following encounters I have had with Ventura users:

Them: Whenever I run Ventura for Windows in 800x600 VGA, it crashes.

Me: It sounds like you're using a non-standard Windows video driver.

Them: But every other Windows program runs fine.

Me: Uhhh.

Them: How come when I add this new cursive typeface to ATM, Ventura crashes?

Me: My guess is that the font doesn't follow the Type 1 specification.

Them: But every other Windows program displays and prints it.

Me: Uhhh.

Version 3.0 is probably in everyone's top three of programs most likely to crash. So what does that say about the stability of version 4.0? Early returns are all over the map — some users report the program starting up right away, others having dreadful experiences with it — indicating once again that numerous hardware-specific factors tend to get in the way. Windows 3.1 should definitely help the stability of all applications, including Ventura, but until it's seen more playing time, it's anyone's guess how well Ventura will behave in game situations under Windows 3.1.

On the one hand, the engineers know full well the problems of 3.0 — it's not like they had to search far to find bugs. The list of well-documented crash sites is thorough, as is the list of bugs reportedly fixed. There is definitely reason to believe that version 4.0 will be a steadier product.

On the other hand, when you get right down to it, Ventura for Windows looks and feels like the port from GEM that it is. Version 3.0 was, and version 4.0 still is. In order for Ventura to operate like a "real" Windows program, a complete rewrite is in order. While the Ventura Software spin doctors might say otherwise, those closer to the code acknowledge this with little reticence. Furthermore, a cogent argument could be made that all efforts to maintain the current program are actually steps in the wrong direction, in that they detract from efforts that could be channeled into the rewrite that Ventura needs.

3. Ventura for Windows is Slow: This has become a cliche for any program running under Windows, but that doesn't make it any less true. Perhaps ignorance is bliss: PageMaker users don't call their program slow because they have no basis for comparison. Ventura users have the GEM version, which makes any Windows program look like lukewarm molasses. If you disregard a somewhat obscene loading time, Ventura for Windows is not a slow Windows program. It scrolls acceptably, edits faster than most, and redraws complex pages as fast or faster than most heavy-duty Windows programs.

Unfortunately, that comparison is lost on GEM Ventura users pondering a switch. They're much more interested in its performance vis-a-vis GEM. And on that score, the deck is stacked against Ventura for Windows. (The good news is that under Windows 3.1 load time and print spooling is noticeably improved, though still slower than the GEM version.)

4. Unreliable Printer Support: Once again, the deck is stacked against Ventura for Windows, as it inherits the Windows print engine, warts and all. Windows 3.1 helps somewhat — especially when using TrueType on text-heavy documents — but printing from Windows applications remains a slow and unsure journey. Printer drivers have proven to be inaccurate and incomplete compared to the simple, clean

implementations found under GEM Ventura. And gone is the easy method of establishing a font's resident status. Under Windows, Ventura shares those fonts with all others, so the change has to be made at the system level, through a tedious editing process of the WIN.INI file or the use of a separate program.

5. The Interface: It's a good bet that most of Ventura's interface problems stem from the decision to port the program over from GEM instead of giving it a fresh rewrite. Many aspects of Ventura's interface continue to feel uncomfortable to regular Windows users. To wit:

— Ventura doesn't follow standard Windows protocol with its Cut, Copy, and Paste keystrokes, choosing to keep consistency with GEM Ventura instead. Not only is this confusing for Windows regulars, it's inhibiting: All other programs offer Del (remove object) and Shift-Del (cut object to Clipboard), while Ventura has only Del, offering no way to remove an object from the page and still preserve the contents of the Clipboard. The likely intention was to make the GEM-to-Windows transition easier, but while that might be helpful for a week or two in the life of a Ventura for Windows user, what about the next two years? The now-familiar Windows user is stuck having to remember the odd behavior of these keystrokes.

— Ventura still offers no non-printing gridlines, visible page grid, or grid snaps (except for its graphic elements). This, of course, is standard issue in Windows programs. Ventura's column and line snap are very good for text, but not nearly as useful for other elements.

— Graphic files must still be converted to GEM format. GEM Ventura users have always put up with a few IMG files lying around, but today, with high-resolution TIFF and PCX files consuming megabytes apiece, those little IMG files aren't so little anymore.

— Users are still limited to only three viewing modes. Again, most Windows programs, even many word processors, offer two to three times that, as well as a selectable zoom to any magnification.

— The INF file remembers too much, starting the next session of Ventura with the application window and tools in the size and position they were in previously. And if you get your tool bars sized and positioned just right, don't go anywhere near the application border with your mouse — one click and the tools snap back to their factory settings.

— Ventura's Clipboard support is sub-par, showing no ability to receive formatted text from any source other than itself. Graphics cannot be copied out to other programs, and imported metafiles require the user to first create a file for them.

— And my traditional pet peeve: You can't open two documents at once for the purposes of sharing files, text, tables, or tags. That one addition would add so much to the program's value, it's almost scary.

*It might be a long time before any of these problems — or your own pet peeves — are addressed. This is not necessarily a reason to avoid Ventura for Windows, but it could help validate a decision to stay with GEM. A fast and friendly bond has been formed between Ventura Software and much of the user base, thanks to Ventura Publisher Users Group (VPUG) chapters, the annual user conference, and CompuServe. But when it comes to software releases, VSI acts very much like the Xerox subsidiary that it is, making decisions and acting upon them in the stately pace of a corporate giant.

These are fascinating times for us Ventura pundits, but perhaps not so easy on Ventura Software. Amid a radical change in command and a spate of recent critical press, VSI could really use a blockbuster reception to version 4.0. But the company has not helped its own cause, with a bark that has been bigger than its bite: Jumping from 2.0 to 3.0, and then straight to 4.0 raises expectations among users to a dangerous level. Had this product been called 3.1, like many users feel it should have been, it would have contributed to an impression that Ventura Publisher is undergoing an ongoing evolution. Instead, with each ".0" release, the implication continues to be that Ventura has arrived in some big way. When users discover otherwise, disappointment is practically inevitable.

Version 3.0 constituted a credible first effort in the Windows arena, and version 4.0 adds some nice features to it. What remains to be seen is whether the program will evolve into a well-conceived and well-implemented application under Windows. It's not there yet, and with the collective standard being raised by the introduction of many fine Windows programs, Ventura Software will face no small task with version 4.1.

And you know what: There's a good chance that when 4.1 hits, many thousands of users will still be wondering if it's time to switch away from GEM, and I'll probably be writing another article like this one. Fascinating.

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Rick Altman has authored books on Ventura Publisher, PageMaker, CorelDRAW, Harvard Graphics, and DESQview. He consults and lectures on corporate publishing throughout Northern California. You can write to him at 20204 Merritt Drive, Cupertino, CA, 95014, or on CompuServe (72341,1714).

Product Info

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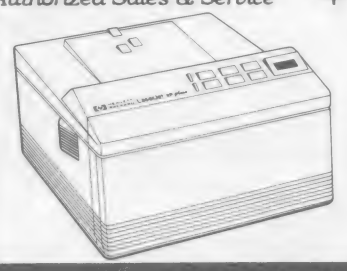

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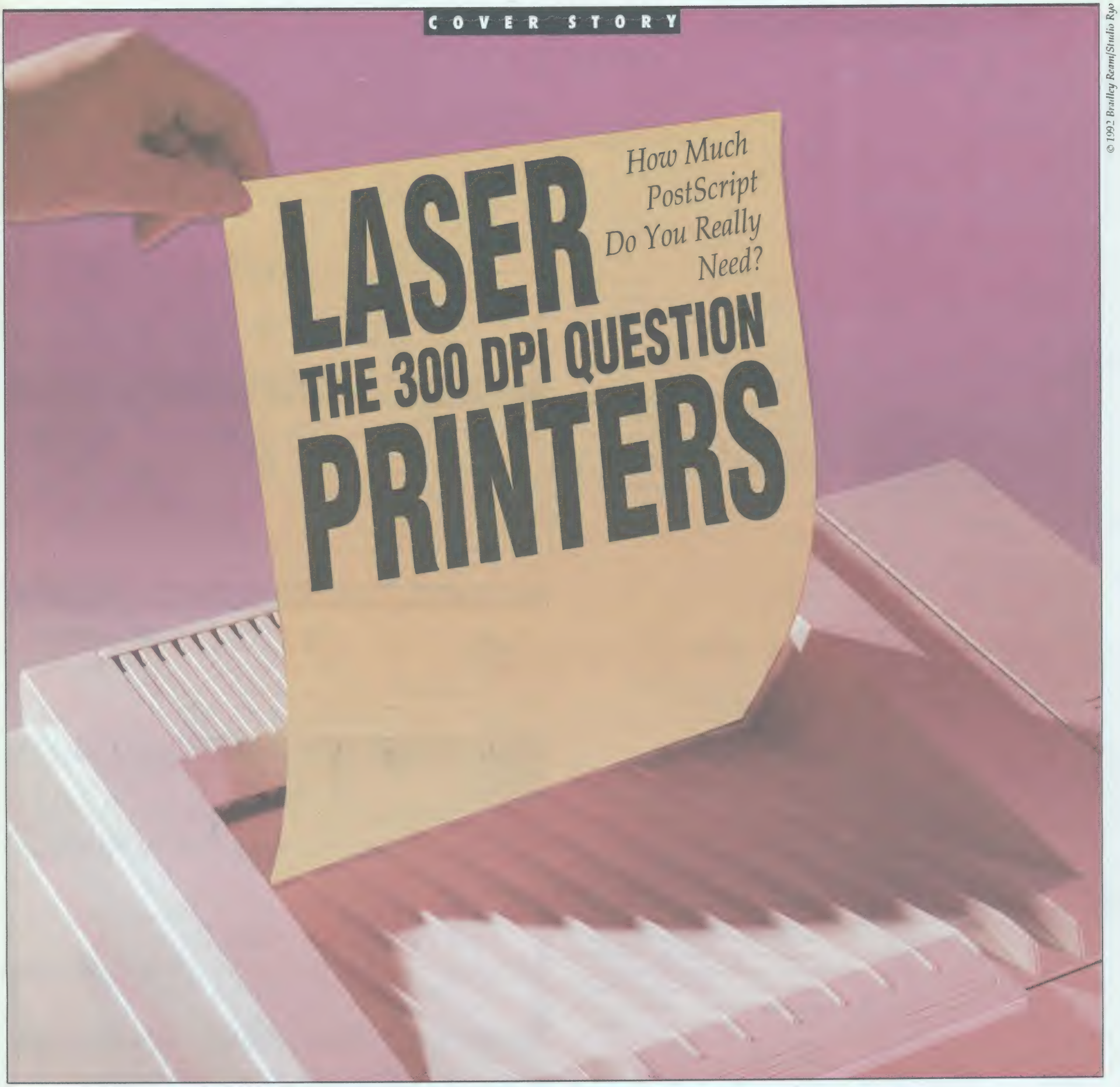

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LASER PRINTERS

THE 300 DPI QUESTION

How Much PostScript Do You Really Need?

By Rick Altman

It used to be so easy. If you needed a laser printer with good all-around office skills, you bought an HP LaserJet. If you needed a printer with more publishing prowess, you scraped together an extra $2,000 and bought a PostScript laser printer. HP or PostScript — a simple, clear-cut decision.

Oy vey, have times changed. Today, you can't even walk into the computer store without your own personal interpreter to help you cope with PCL-speak (Printer Control Language). Everywhere you go you see non-PostScript printers claiming that they are PostScript-compatible, PostScript-capable, employing the finest virtual PostScript drivers, or just plain "better than PostScript."

If you listen to a sales pitch for a non-PS printer, you'll come away with the very distinct impression that PostScript is the world's worst standard that, incidentally, everyone is trying to emulate. The solution, of course, is to stop listening to sales pitches. Short of that, it's helpful for you to understand the particular features of PostScript printing and whether any or all of those features offer actual value to you.

Do You Need PostScript?

Let's dispel one common misconception right away — that PostScript laser printers are inherently better printers than non-PS printers, such as HP LaserJets. In terms of the quality of their output, this is untrue. Different brands and models will naturally vary in quality, but there is no fundamental superiority that PS printers enjoy. Truth is, most PS printers employ the same printer engine used by non-PS printers.

The area in which PS printers are considered superior is in their versatility. They generally have more typefaces built directly into ROM (the printer's built-in "read-only

memory"), their support for downloadable typefaces is more extensive, and the language used to describe the elements of a page is more robust. They also speak the same language spoken by the high-resolution imagesetters that produce the beautiful film or glossy paper at your service bureau. Therefore, your PS laser printer functions very nicely as a proofing device for documents destined for a service bureau.

So back to the question at hand: Do you need PostScript, and if so, which aspect of PostScript that are typically coveted by non-PS users:

- Convenience of using typeface outlines instead of bit-mapped fonts.
- Access to Adobe Type 1 faces (widely regarded as the highest quality) including a vast supply of third-party and public domain Type 1 faces.
- Ability to create encapsulated PostScript (EPS) files for others and/or incorporate EPS files into your own documents.
- Compatibility with high-resolution imagesetters that speak PostScript.

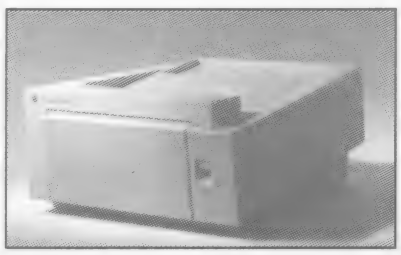
Let's revise the question: Do you need true-blue PostScript, or will a reasonable facsimile suffice? How about a total fake? Depending upon your needs and desires, the total fake might be just what you're looking for.

Better Type Handling

Listen to this characterization and decide if it fits you. You use a laser printer for virtually all your documents. You wouldn't know a kerning pair from a pairing knife, but you know that you're beginning to get tired of Dutch and Swiss set in 12 and 14 points. You also know that you like the look of those cool Dingbat characters and you wish that your HP LaserJet could produce them.

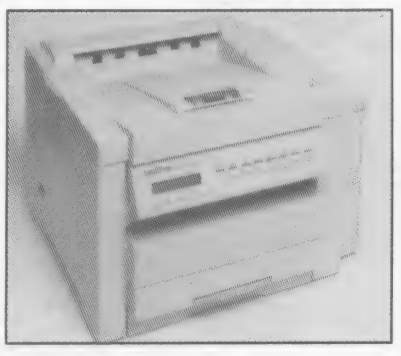
Increased font selection is the most common form of PostScript envy. Fortunately, it is also the easiest and cheapest to cure, especially if you are running under Windows 3.0 or above. The Adobe Type Manager sells for well under $100 and is bundled with several popular Windows apps, like Ami Professional, Micrografx Designer, PageMaker, and Ventura Publisher. Of course, it works beautifully with PS printers and its screen fonts are superb, but it also serves non-PS printers by creating bitmapped fonts on the fly during print-time. Best of all, ATM supports *any* Type 1 face that you have in your system and it handles all of the font downloading

SEE NEXT PAGE



APPLE

Apple recently unveiled its first laser printer designed for both PC Windows and Macintosh users. The Personal LaserWriter NTR ($2,199, suggested list) uses a high-speed AMD 29005 RISC processor with built-in Adobe PostScript Level 2 and HP PCL4+ printer languages with simultaneous connection to parallel, LocalTalk and serial interfaces. The printer comes with 35 typefaces, Apple's proprietary TrueType font scaling technology and Adobe's Type 1 font software in ROM (read-only memory). Apple also now offers a controller board upgrade to the Personal LaserWriter NTR for owners of the earlier Personal LaserWriter NT and SC printers. For more information, call 800/776-2333.



BROTHER

Beginning in May, Brother International will start shipping its new HL-10V laser printer, recently demonstrated to *Computer Currents*. The printer boasts a 10-page-per-minute speed, HP PCL Level 5 emulation (i.e. HP LaserJet III compatibility), 36 resident fonts (12 scalable and 24 bit-mapped), automatic interface switching and an automatic data compression feature in graphics mode designed to reduce file size for faster processing and reduced memory requirements. The HL-10V uses the same single-piece "clean hands" toner cartridge as the HP LaserJet III for easy installation. The printer's 300-dots-per-inch resolution includes Brother's "High Resolution Control" enhancement for an effectively higher resolution of up to 600 dots per inch for near-typeset quality output. The printer's upright design takes up 50-percent less desk space than an HP LaserJet III. It also features an adjustable paper drawer that can accommodate letter, legal, A4 and B5 paper, as well as transparencies and envelopes. Suggested retail is $1,995, though like manufacturer's pricing, Brother officials say to expect the "street" or store price to be significantly lower. Contact Brother at 908/356-8880 for details.

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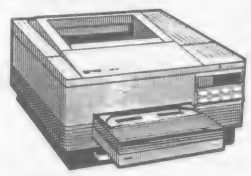

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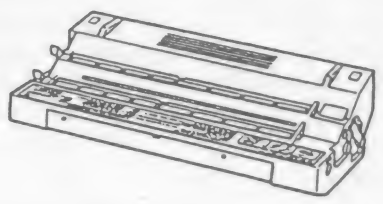

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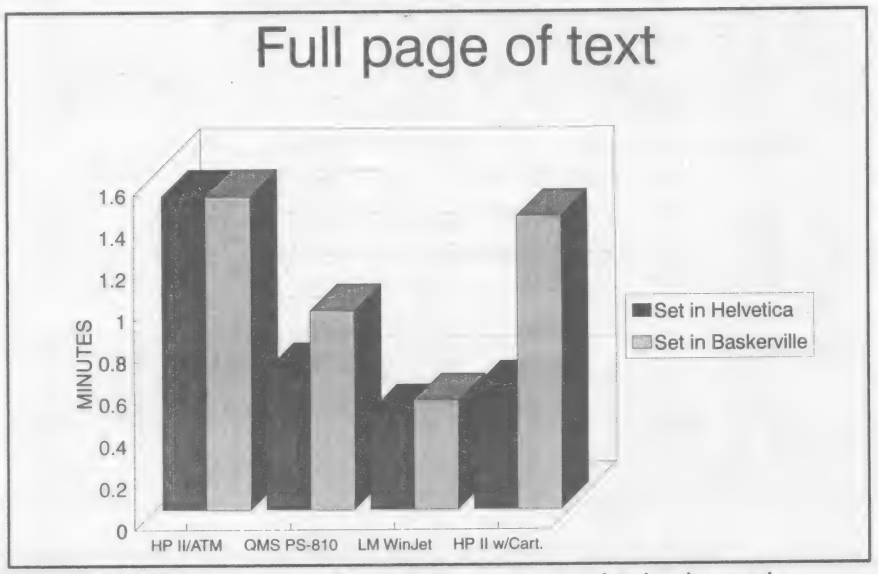


As in other tests (see tables), the WinJet proved to be the quickest printing solution.

TEST 1: FULL PAGE OF TEXT

	Set in Helvetica	Set in Baskerville
HP II w/ATM	1:32	1:28
QMS PS-810	0:38	0:55
LM WinJet	0:25	0:32
HP II w/Adobe Cart.	0:55	1:23

TEST 2: PAGE W/10 TYPEFACES

	Resident faces	Non-resident
HP II w/ATM	1:00	0:58
QMS PS-810	1:39	2:47
LM WinJet	0:54	0:54
HP II w/Adobe Cart.	2:01	4:40

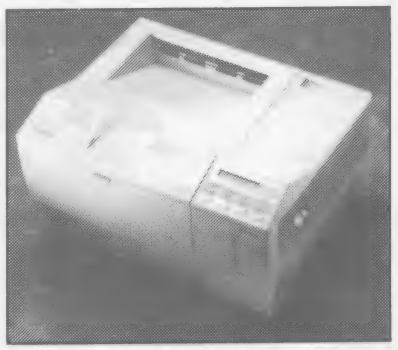
In Tests 1 and 2, the HP/ATM combo and WinJet printer treat all typefaces the same, sending them to the printer at print-time. The QMS and HP/Cartridge must download typefaces not resident in printer ROM; hence the significant difference in print times between using resident and non-resident faces. If you use many soft fonts, this could be a big factor in choosing a printer.

TEST 3: PAGE WITH COMPLEX EPS

HP II w/ATM	n/a
QMS PS-810	1:38
LM WinJet	0:42
HP II w/Adobe Cart.	2:59

IMAGE QUALITY: FROM 1 (GOOD) TO 5 (EXCELLENT)

HP II w/ATM	★★★★
QMS PS-810	★★★
LM WinJet	★★★★★
HP II w/Adobe Cart.	★★★★



EPSON

Epson's EPL-8000 laser printer ($1,999) is a 10-page-per-minute HP-compatible system designed to be easily shared in a small workgroup or business. The printer comes with two interface ports that allow two PCs to share the printer. An optional third interface (choice of parallel or serial — $152) provides connection to a third PC. The printer comes with 14 bit-mapped fonts and 13 scalable fonts with a cartridge slot for additional HP-compatible fonts. Manufacturer's limited warranty is for two years. Adobe PostScript ($649) optional. (All prices are suggested retail. Actual "street" or dealer prices are likely to be lower.) To locate the nearest Epson authorized reseller, call 800/922-8911.

FROM PREVIOUS PAGE

for you. Zapf Dingbats, Bauer Bodoni, Stempel Garamond, or Helvetica Condensed — if it's a legitimate Type 1 PostScript font, ATM will see to it that your application can use it, your screen can display it, and your printer can print it.

In our tests, the quality of the type was virtually indistinguishable from a true PostScript printer. Only through a magnifying glass could we see a difference, and through it, we judged an HP Series II running ATM to be slightly clearer and sharper than a QMS PS-810. Our experiments should not be mistaken for scientific procedures, as we didn't account for the age of the printers or the toner cartridges, but the fact remains that an old HP II or an HP III, when fitted with ATM, provides a complete solution for any Windows user seeking increased versatility with typefaces.

The software-only solutions for non-Windows applications aren't as friendly, as there is no referee overseeing applications running from a DOS prompt the way that Windows watches over all who launch from Program Manager. Bitstream Facelift, Atech's Publisher's PowerPak, and the Adobe Typeface Collection all provide font support in one form or another, but such support would have to be implemented once for each program, instead of once for all programs as can be done under Windows. In other words, you can install PowerPak to work with WordPerfect 5.1 for DOS, GEM Ventura Publisher, and Lotus 1-2-3, but you would need three separate installations.

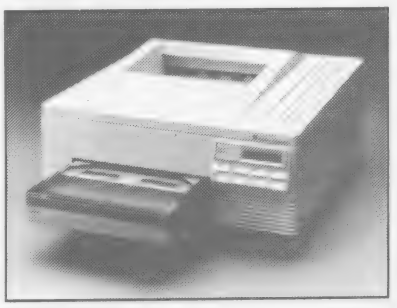
If you're a Windows 3.0 user poised to upgrade to 3.1, you owe it to yourself to also consider TrueType as your one-stop type solution. It promises to be clean, seamless, fast, and friendly. Early reports confirm all of these adjectives.

Superior Document Handling

If an expansive type selection is your aim, ATM and TrueType can both an-

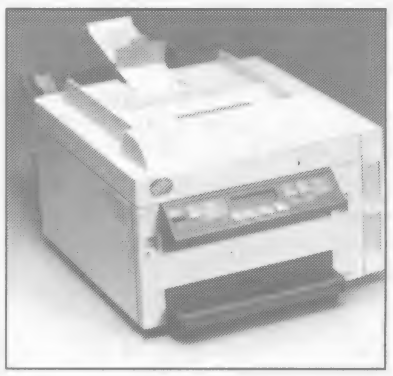
GCC

Designed specifically to work with the Macintosh, GCC's BLP Elite ($1,599) is a PostScript laser printer with 17 PostScript fonts, two megabytes of RAM, and AppleTalk for sharing over a network. The printer's 4-page-per-minute print engine, manufactured by Oki Electric, features a patented toner recycling system that automatically recycles unused toner to help minimize operating cost. An envelope printing desk accessory software program is also included. For more information, call 800/422-7777.



HEWLETT-PACKARD

Hewlett-Packard has been setting standards in laser printing since it brought out one of the first laser printers, the HP LaserJet, back in 1985. Today, its most popular model is the HP LaserJet III ($2,395), an 8-page-per-minute printer that includes HP's Resolution Enhancement Technology for on-the-fly font scaling, faster graphics printing and smoother edges for text and graphics than standard 300dpi printers. Also included is the HP PCL 5 printer language with eight scalable typefaces and 14 bit-mapped fonts. An optional Adobe PostScript cartridge is also available. Sales information may be obtained by calling 800/752-0900.



IBM

IBM has a number of laser printers (manufactured under license by Lexmark International) for PC/Windows and Macintosh users. The IBM Laser Printer 6 Model 4029 ($1,895, pictured above), prints at up to six pages per minute, and includes Adobe Type 1 scalable fonts and 10 bit-mapped fonts. With an optional Adobe PostScript cartridge ($499) and 4 megabytes of additional memory, the printer is capable of a higher 600 x 600 resolution. (All prices are suggested retail. Actual "street" or dealer price is likely to be lower). Call 800/IBM-2468 for more product information.

swer the call. But now listen to another characterization and see if it fits you: You're working against the clock on a good-sized book project. You still await ten more pieces of art from the artist working on chapters 15-17. She's good, so you know it will be worth the wait. When they arrive express mail, her printed samples blow your socks off — exquisite type, perfect gray tones, crisp gradient fills. When you check the directory of the diskette she supplied, you see eight files with EPS extensions. The artist assumed that you wanted to render her images in the most accurate way — anything less than encapsulated PostScript would be risking significant loss in image quality.

Those eight EPS files don't faze you a bit. A project this size is obviously destined for an outside service bureau, with your trusty PostScript laser printer proofing the pages every step of the way. You drop her eight EPS files into place and you knock out those chapters.

Without a PostScript printer, you face a compromise somewhere along the line on a big project that cries out for PostScript graphics. Either you have to have all art submitted in a standard vector graphic format like WMF, CGM, or GEM, dashing all hope of rendering quality gradient fill patterns. Or you have to hope that the EPS graphics fit and look just right, because you'll have no way to proof them. No, if you are working on projects like these, a PostScript laser printer, or a very compatible compatible, is a must.

That does not, however, mean that you must purchase a brand new PostScript laser printer. If you have a perfectly good HP LaserJet, you have numerous options at your disposal. The option that does not suffice is to use only ATM — remember, ATM only provides PS-compatible type for non-PS printers. It does not provide the EPS capability described above.

The most inexpensive option is the PS cartridges supplied by Adobe (for the HP II) and Hewlett-Packard (for the HP III). These cartridges provide true PS capability to HP printers. They connect like standard cartridges and interpret all incoming print instructions, just like the PS ROM built into native PS printers. Output is as good as the HP engine, which is to say very good.

PS cartridges work inside of Windows and outside. They are seamless to your software — for every intent and purpose, you now own a PS printer when you plug one of these in. The drawback is speed. On our tests of the various PS options, the cartridge consistently finished last (see chart).

For almost twice the outlay, Windows users can pick up the newest product from LaserMaster (for dealer info, call 800/365-4646), the WinJet printer. This novel product continues on LaserMaster's tradition of conducting brain transplants on HP printers. But unlike most LM products which provide large controller cards packed with memory and ROM chips, the WinJet uses your CPU and your PC's memory. If you connect the WinJet to a fast 386 with lots of RAM, then you have a very fast printer. The WinJet offers two printing modes — 300dpi

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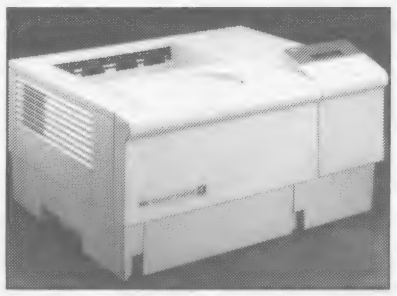

NEC

NEC Technologies' Silentwriter Model 95 is a 300dpi PostScript Level II laser printer compatible with both Macs and PCs. It features HP PCL 5 emulation and includes 35 resident scalable typefaces. Automatic emulation switching detects PostScript and PCL files. According to NEC, the printer's Microfine toner produces a rich black print density that is further enhanced by Sharp Edge Technology, designed to eliminate jagged edges and produce print quality appearance of a 600dpi printer. Suggested retail price is $1,749. Call 800/388-8888 for more information.

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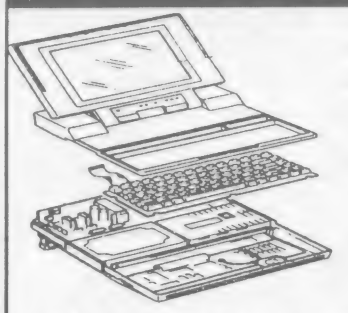

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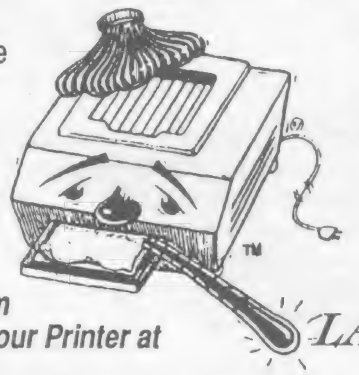

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direct printing from any Windows application, and 800dpi PS output from all applications, including DOS programs, running under 386 Enhanced mode.

The WinJet's performance is nothing short of stunning. In its PS mode, it performed exactly like a PostScript printer, accepting soft fonts and interpreting EPS files. Because it is not true PostScript, it's conceivable that you could throw a complex instruction set at it and make it fail, but we tried and couldn't. It was the clear winner both in print quality and speed.

The downside? We found in our testing on a number of PCs that it simply didn't work right on two of them for reasons LaserMaster hasn't been able to determine. On the PCs it does work on, the WinJet performed flawlessly; on the others we encountered numerous crashes we can't explain.

If you do not have an existing LaserJet printer, then a true-blue PostScript printer might be in your future. Today's PS printers offer better speed, resolution, and price than previous generations, and many provide HP LaserJet emulation for draft printing, screen dumps, and other tasks for which a direct image transfer is required. We paid over $4,000 for our QMS PS-810 printer five years ago; today, a good 300dpi printer is less than half that. The QMS printer in the $4,000 price range today is a 600dpi machine with two extra type families resident in ROM. If we were to buy a new PS printer today, it would likely be another QMS, so strong is their reputation for excellent printers.

If you were to enter the PostScript printer market, you would likely encounter dozens of PostScript lookalikes, boasting better features, speed, resolution, and/or price. If you need full PostScript capability and are considering a PostScript "clone" or compatible printer, believe nobody. Instead, prepare the most complex EPS file you possibly can and test every PS-compatible printer before considering it for purchase, including the WinJet. A true-blue Adobe PostScript printer may be more expensive, but is definitely a more worry-free solution from a compatibility standpoint.

If you are entering the world of PostScript for the first time, you will discover an expansiveness to your image and document management that you just can't get with LaserJets. Best of all, you can get this feeling today for half the investment of just a few years ago.

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Rick Altman has authored books on Ventura Publisher, PageMaker, CorelDRAW, Harvard Graphics, and DESQview. He consults and lectures on corporate publishing throughout Northern California. You can write to him at 20204 Merritt Drive, Cupertino, CA, 95014, or on CompuServe (72341,1714).

QMS

The QMS-PS 815 MR and PS 825 MR are Adobe PostScript printers that boast 600 x 600-dots-per-inch resolution. Users can select the higher resolution or standard 300dpi from either the printer's control panel or software commands. QMS's "Emulation Sensing Processor" technology allows automatic switching between the printer's native Adobe PostScript and HP PCL Level IV modes with built-in connections to parallel and LocalTalk for PC and Macintosh connectivity. Multilingual control panels and 45 Adobe typefaces are also included. The single-tray QMS-PS 815 MR is $5,495, while the suggested retail price for the dual-tray QMS-PS 825 MR is $6,495. Call 800/631-2692 for further information.

TEXAS INSTRUMENTS

The Texas Instruments microLaser Turbo ($2,249) and microLaser XL Turbo ($3,649) printers both feature Adobe PostScript Level 2 and fast RISC coprocessors (providing print speeds of 9 pages per minute and 16 ppm respectively). Also included are 35 PostScript fonts, PCL 4 emulation (for HP LaserJet compatibility) and "intelligent emulation switching" where the printer automatically determines whether a file to be printed is PCL or PostScript. The TI microLasers can be connected to up to three networks or computers in simultaneous communication with the printer, which automatically polls each interface before printing. This would include connecting to Macintosh, PC or Unix systems using standard parallel or optional serial or AppleTalk interfaces. (Prices are suggested retail.) Call 800/527-3500 for more info.

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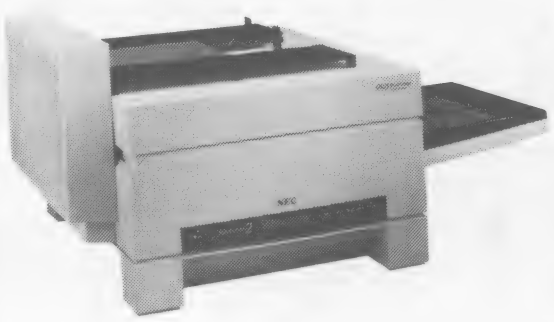

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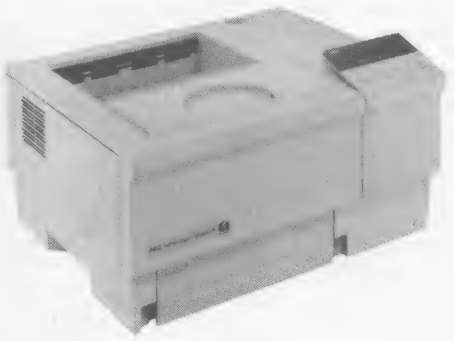

NEC Silentwriter Model 990
With its advanced RISC processor, 35 standard Adobe fonts, HP LaserJet IIP Emulation and 2MB of RAM, the Silentwriter Model 990 is one of the most powerful desktop publishing tools available. Its Parallel, Serial (RS-232/RS-422), Appletalk and SCSI Interfaces make connectivity problems a thing of the past. At 8 pages per minute and 300 x 300 dpi, it is both fast and professional enough for all of your desktop publishing and presentation needs.

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Finally there's a printer that's fully configured, accomodates both PC and Mac platforms and delivers remarkably sharp output ... all at an incredibly low price. The new Silentwriter Model 95 features Adobe Postscript Level 2, HP LaserJet III emulation and advanced print sharing from both PC and Mac platforms (that's right connect to the PC and Mac at the same time !) It's the one printer that's a great solution for everyone.

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dPi

By Charles Bermant

Rooms for Improvement

Xerox Extends the Power of Windows With Two New Products

The mighty Xerox has introduced a pair of new utilities it hopes will capture its fair share of the Windows market. After all, it was Xerox PARC which started the Windows ball rolling in the 1970s. Now, PARC has begat Rooms, a virtual screen program, and PaperWorks, which allows remote control of the PC through a fax machine.

Xerox tells us the near-simultaneous release of Rooms and PaperWorks is a coincidence. The programs were developed by different teams on separate timetables, and Xerox even hired two PR firms to handle the rollouts. If this seems somewhat inefficient, it underlines the disparity between the two products and the fact that they do not compete. Their only similarity is their purpose: streamlining and improving Windows for the masses.

Rooms is an evolution of the "virtual screen" programs that give you more than one working Windows desktop ("Windows Chronicles," *Computer Currents*, March 1992). These utilities allow you to switch between different workspaces with a single control, allowing different full-screen applications to be accessed. And with the improved resource management in Windows 3.1, such technology (available for over a year) was finally usable.

So here comes Rooms, to take the process to the next logical step. Virtual screen programs like WideAngle and Virtual Monitors supply an icon or control with an arbitrary number of screens, working within standard Windows protocols. Rooms, on the other hand, takes over the interface and brings along more flexibility. At startup, the program displays each user-configurable "Room" on-screen, labeled with regard to its individual function.

For instance, you might assign a room to each application group — word processing, communications, utilities and desktop publishing. You might also pop a specific project in its own room, deleting it when the task is complete. You switch between different rooms to address respective tasks. At the opening screen you can view the contents of each room, either as a program icon or a file. While these images are not editable, they are clear enough to determine their contents, offering a clear view of what programs are located in which spaces.

Rooms has a lot of under-the-hood smarts. Loading an application in the Overlay room opens it in every other room. For instance, you may want to have File Manager or a phone dialer accessible at all times. Similarly, you don't need to open two copies of an application to run it in two or more separate workspaces.

Unlike other virtual screen programs, Rooms allows you to create as many or as few desktops as needed. This is a real advantage. WideAngle and Virtual Monitors lock you in to 9 and 12 screens respectively; this is probably too many for most users. Even if you don't use every screen there is a feeling of wasted space — in addition to the inconvenience of switching between empty screens. So if only four surfaces are needed, you just create

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four rooms.

A room is somewhat more than just another virtual prairie. Each room has its own controls, allowing access to the Overlay room and the previous room through a tiny window. Also unlike the standard virtual screen program, you can install different environmental options, such as wallpaper, in each room. This mainly cosmetic option is helpful, as it helps to visually differentiate application categories and tasks.

The structure of a "room" is also somewhat more exciting than a standard virtual screen. Who wants a plain old surface, when it can be greatly enhanced? Or, more in tune to their own metaphor, would you rather spend time in a tacky, unfurnished closet, or stretch out into something more luxurious?

With this product, Xerox's new Xsoft division has entered — and improved upon — a fairly obscure category. Many users' first glimpse at virtual screens will be here, so the less snazzy products will pale by comparison. For instance, switching between a screen in Rooms starts a fancy zoom action, whereas WideAngle redraws the screen with no fanfare. Ho-hum.

As a result, Rooms is considerably slower. You may not really notice, or care, with a machine that's 25MHz or faster. The rest of us, however, will watch and wait during the switch, and wonder if there isn't a better way — especially when the other less fancy products make the shift almost immediately, even on an old, slow 16MHz 386SX.

At this writing, I have not used the "final" version of Rooms, which should be in the stores at publication. (An aside: The first run of the boxes had a typographical error, which held up mass shipments. The first few thousand, however, contain the typo. Find the mistake, and win a Xerox copy of your choice.) I didn't want to nail the program for speed, especially if it was going to be corrected. But an Xsoft representative said that there was little difference in speed between my beta version and the final product. To paraphrase, he then admitted that the program was less than perky on slower machines, maintaining that the environmental advantages outweighed the slight slowdown.

Maybe, maybe not. Rooms is cool and fun, along with the best Windows utilities. But for many users, the less spectacular product works better. If all you want is a way to switch between applications — a sort of enhanced task list — and have a less-than-state-of-the-art PC, then WideAngle or Virtual Monitors will be a better choice. Rooms will only be superior with a fast PC, and for people who don't mind sacrificing performance for flash, or style for substance.

This is not necessarily a putdown, as Windows' cosmetics is one of its most compelling traits. At this point, however, it doesn't make sense to walk into Rooms without investigating the alternate space.

Fax Checking

More so than Rooms, PaperWorks has the potential to change computing styles. It's a complicated product with a simple explanation: Used in conjunction with a fax board, it can receive remote instructions to fax specific documents to remote locations. For instance, you may need to check some facts from a document on your home computer, or send that document to a third party.

There are certain qualifiers: Initially, PaperWorks only supports four fax boards, and two of them are from The Complete PC. Practically, it requires a dedicated fax line connected to a machine that is on all the time (and one little power spike can ruin the chances of doing business from Bimini). It uses a lot of hard disk space (due to the size of fax files a free 40MB is recommended). And the program can only send the files that reside in its own directory.

So PaperWorks is still a bit of a dream product. The days of retrieving a file from an obscure directory is a future feature (for now, you need to know what you are going to need before you leave). While any innovative product leaves you craving more, PaperWorks has some remarkable capabilities. If the power doesn't spike, you can receive all the faxes sent to your home machine at a remote location. It is also fairly easy to use (or a lot easier than you would imagine) even to the point of supplying a slim, portable manual with all the fax retrieval instructions.

In addition, the PaperWorks interface is a lot more detailed and useable than standard Windows fax programs. So even if remote computing isn't part of your scheme, PaperWorks can make stand-alone PC faxing less of a chore.

Neither Rooms nor PaperWorks are for everybody; the target customer for both products is fairly specific. If you fall within these target groups, however, these programs will make you ecstatic: They are well constructed, easy to use and demonstrate a sense of imagination lacking from a majority of new Windows products.

Product Info

Rooms for Windows, $99
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PaperWorks, $249
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Charles Bermant is a freelance writer based in Gladstone, Oreg. He is the author of ***The Windows 3.0 Companion,*** *now available from Business One Irwin. He can be reached through MCI Mail as "cbermant."*

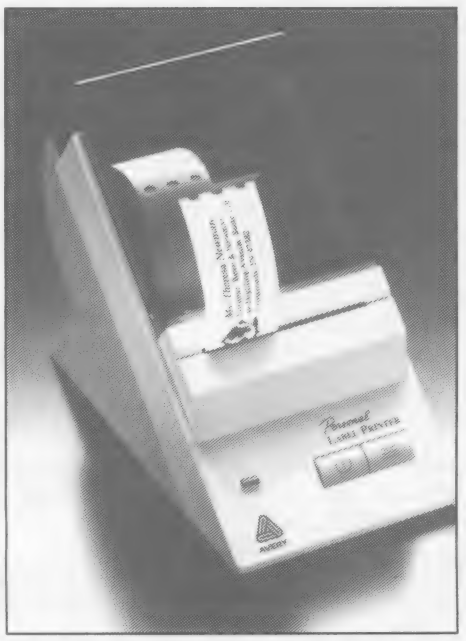
MINI REVIEW

Envelope Addressing Made Easy For The Mac

By Lawrence J. Magid

The computer industry has a knack for creating big solutions to big problems. But what about the little problems like printing envelopes? It seems that most offices I visit, no matter how computerized, have at least one typewriter around for typing envelopes.

KiwiEnvelopes handles envelope printing for Macintoshes connected to laser printers or ink-jet printers such as the Hewlett-Packard DeskWriter. This "desk accessory" runs in the background while you're using another program. You use your mouse to highlight an address, copy it into the Macintosh clipboard, load the envelope, click the print button and you're done. You can print postal bar codes and can even paste in a graphic in case you want to impress the letter carrier. The program, which costs $49.95, only handles one address at a time, but that's usually all you need. Kiwi Software can be reached at 805/685-4031.



Both Seiko's Smart Label Printer and Avery's Personal Label Printer (shown above) plug into your printer port and come with software that can be used while you're using a word processor or other program.

Of course you still have to hand-load the envelope into the printer. This may be a hassle in some offices, especially if the printer is shared over a network. Certain high-end printers offer optional automatic envelope feeders.

If you do run envelopes through your laser printer, you may find that some envelopes tend to bend or wrinkle, or even to jam the printer. In my experience, cheaper envelopes work best because they tend to be thinner.

Another solution is to use a gummed label. Seiko Instruments and Avery Dennison both offer special little printers, designed specifically to produce gummed labels. In both cases, the printers plug into your printer port and come with software that can be used while you're using a word processor or other program. The Seiko Smart Label Printer ($199) comes with easy to use software for the Mac (there's also an MS-DOS and Windows version). I found that Avery's Personal Label Printer ($279) is faster and prints better looking labels. White labels, which come in rolls of 100, cost between 3 and 5 cents each. I use the Seiko product for labeling file folders, video cassettes and other objects but I don't like using labels on my mail for fear that people will think it's junk mail. Both companies will soon offer clear labels designed to minimize that problem.

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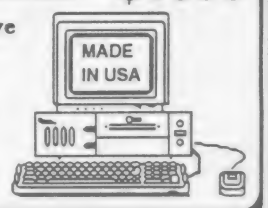

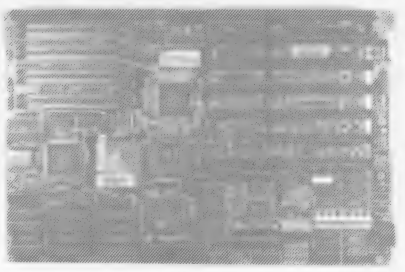

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MACUPDATE

Apple Drops PowerBook Prices, Offers Financing Program

Apple (Cupertino, Calif.) says it is lowering prices on six of its PowerBook 100 and 140 notebook computers, introducing new models of the PowerBook 140 and 170 with larger hard disk drives, and offering a special financing program on certain Mac and PowerBook computers to entice consumers to buy.

Effective immediately, the suggested retail price of the PowerBook 100 with 2 megabytes of RAM and a 20MB hard disk will be $1,499, a price reduction of 25 percent, Apple said. This is the second reduction for the 100 since its introduction six months ago — the first reduction was announced in February of this year when the price was dropped $300 to $1,999. The PowerBook 140 with 2MB of RAM and a 40MB hard drive has also been reduced $500 from $3,199 to $2,699, Apple added.

While price reductions on the low-end PowerBook attracts attention, each time Apple has announced PowerBook price reductions it introduces more expensive PowerBooks with additional memory and hard disk space. That's due to customer demand, according to Apple, as users want more hard disk space, more memory, and easier modem access.

To answer the 20MB hard disk issue the company said in February it would offer a hard disk upgrade program this month to PowerBook 100 owners, so they could go from a 20- to a 40MB hard disk. However, information has not been announced on the upgrade program yet.

Five new models of the PowerBook 140 and 170 will now come standard with either 2MB or 4MB of RAM and a 40MB or 80MB internal hard disk drive. Suggested retail prices of the new PowerBook 140 2/80 configuration starts at $2,999, Apple said.

To help consumers pay for the new models, Apple is introducing the "Easy to Buy, Easy to Use" promotion, which offers finance incentives with no finance charges and no payments for three months. The program began April 15, 1992 and runs through July 5, 1992.

— Linda Rohrbough, Newsbytes

Computer:applications Intros MacJet and MacParcel

Computer:applications, Inc. (Raleigh, N.C), developer of QuickDraw and PostScript printer driver technologies, has announced the availability of MacJet version III, a QuickDraw printer driver for the HP LaserJet and compatibles. MacJet is an advanced Chooser-level serial/parallel printer driver that allows low-cost HP or compatible laser printers to be used with the complete line of Apple Macintosh computers.

The company explains that MacJet uses proprietary technology to create HP download fonts (in any point size) from PostScript Type 1 or TrueType fonts and automatically install them in HP printers as resident fonts.

According to Steve Pierce, president of Computer:applications, "Our new feature set for MacJet eliminates the slow font rasterizing process found in previous QuickDraw printer drivers, allowing the HP laser printer to print multiple page documents as fast as most popular PostScript laser printers."

MacJet is retail priced at $149.95 but is available at an introductory price of $99.95 through June 30, 1992.

Computer:applications has also released its UPS (United Parcel Service) Rate and Zone Calculator desk accessory for the Macintosh. Complete with 1992 rates and services, this easy-to-use desk accessory is available any time in any application, including databases, to calculate the UPS zone and give the user accurate costs for all UPS parcels and letters.

When given the destination zip code, weight and declared value, MacParcel will calculate the shipping zone and the total cost for shipment, including C.O.D., insurance and any user-defined handling charges. It will calculate the zone chart for any zip code in the United States, Puerto Rico and the Virgin Islands, the company says. MacParcel's suggested retail price is $39.95.

MacJet and MacParcel are System 7-compatible and work with all Macintosh computers. Both products are are available now from Computer:applications by calling 919/846-1411.

486-50/256K $2258

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SVGA Monitor
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101-key KB
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486-33/64K
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130MB HD
1.2 & 1.44 FD
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T/Maker Ships Multipurpose "FaxMania"

T/Maker is now shipping FaxMania, a low-cost software package that generates a variety (80 in all) of ready-to-send, eye-catching cover sheets for fax users. Each cover sheet has a theme headline, such as: "Happy Birthday," "Urgent," "Fax From Hell," and "Thanks For Your Order" complemented by an appropriate graphic image, and room for original text.

Each of the cover sheets comes on disk in a variety of file formats including: Microsoft Word, T/Maker's WriteNow, Claris MacWrite, and MacPaint. "As we began to use fax/modems ourselves, and receive a lot of faxes, we saw that most cover sheets are really dull," said Christine Duff of T/Maker in a demonstration for *Computer Currents*. "The FaxMania cover sheets are a way for people to get a message across quickly, and have some fun at the same time."

T/Maker CEO Heidi Roizen said FaxMania is likely to be the first in a series of similar products for the fax and electronic-mail market. "I can see products like animated greeting cards and other multimedia-oriented communication products in time," she said.

A PC version of FaxMania is planned for release this May. FaxMania lists for $69.95, though Roizen says the "street" price should be about $35. T/Maker is based in Mountain View, Calif. Call 415/962-0195.

— *David Needle*

Electronic Switch Box for the Macintosh

Start-up Axion (Sunnyvale, Calif.) is offering an inexpensive solution for the Macintosh users who are regularly faced with the constraints of having just two serial ports on their Macintoshes. The Axion Switch allows the user to maintain three additional devices per serial port in constant access and to easily choose between them, according to the company.

With the Axion Switch installed, the most commonly-used device can be connected to Port 1, the default port, while additional devices can be easily accessed through the Control Panel.

The suggested retail price for the Axion Switch is $159. For further information, contact the company at 408/235-0227.

Typing Tutor 5

Que Software (Carmel, Ind.) has announced Typing Tutor 5 for the Macintosh, a new version of its keyboard instruction program. The company said Typing Tutor 5 adds new features that simulate an actual classroom and gives the user greater control over the learning environment.

Typing Tutor includes timed response monitoring, a feature that monitors the time it takes to respond once a letter is presented. The program uses that information to customize lessons and tests to match the user's proficiency level.

A natural language generator (NLG) creates lessons and tests using actual words, phrases, and sentences that contain the keys the user needs to practice. The NLG continually adjusts the content of lessons and tests to meet the user's ability level.

Que said Typing Tutor's Personal Teacher feature provides the student suggestions of what to do next, such as practicing a specific set of keys or taking a timed test. It also provides information on writing technology and offers encouragement to motivate the student.

Typing Tutor 5 for the Mac has a suggested list price of $49.95, and is shipping now. For more information, call 800/428-5331.

— *Jim Mallory, Newsbytes*

"More Disk Space" Expansion Software

AlysisSoftware (SanFrancisco, Calif.) is shipping More Disk Space, what it calls hard disk expansion software, as an alternative to archiving and compression utilities.

The software automatically applies an array of space-saving techniques to maximize hard disk space, without sacrificing performance, the company says. More Disk Space uses "resource compresssion" technology, which, in addition to compressing files and applications, lets compressed applications launch faster than when they're left uncompressed, the company says. Also, files that formerly had to remain uncompressed, such as INITs and desk accessories, can now be compressed without problems.

The technology also allows for compatibility with hard disks that don't have More Disk Space installed, so compressed files can be used on any Macintosh.

The suggested retail price for the software is $99.95. For more information, call 415/566-2263.

Advertise Your BBS in Computer Currents' Bulletin Board Listings.
See Page 36

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Women, Technology & Power

10 WOMEN WHO MADE A DIFFERENCE

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Get a behind-the-scenes look at the industry, insight into the psyches of these super-successful women, and read about the inevitable tradeoffs they made along the way.

A must read, **WOMEN, TECHNOLOGY & POWER** (Amacom Books, 282 pages, hardcover) is now available directly from the author, who is happy to autograph copies upon request. Please send check or money order for **$ 14.95** per copy (*shipping & handling included*), payable to:

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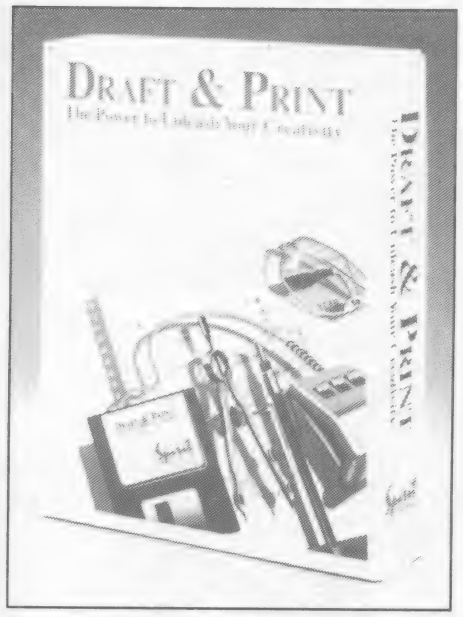


Spirit of Discovery (Carlsbad, Calif.), a developer and publisher of productivity, entertainment (arcade and simulation) and educational software for MS-DOS platforms, has introduced Draft & Print, an IBM/PC-compatible software program that enables users to create, edit and print professional-quality drafting documents with the aid of step-by-step voice instruction.

Draft & Print, the inaugural product offering from Spirit of Discovery, features dynamic voice assistance (DVA) which guides the user through a drawing, thus sharply reducing the learning curve, according to the company. DVA is supported by PC-compatible internal speakers and requires no additional sound support, although the user may utilize Adlib and SoundBlaster cards.

Spirit of Discovery maintains that Draft & Print, the first voice-assisted drafting program for PCs, allows users of any skill level to produce professional-quality documents. "Draft & Print will revolutionize do-it-yourself home improvements," said Spirit of Discovery director of marketing John Morley.

"Unlike low-end drafting products which offer little flexibility, Draft & Print offers all the necessary tools of more high-end software packages — at a fraction of the price," said Morley.

Draft & Print aids the user in producing scaled drawings including floor plans, landscape plans, pools and spas, interiors, furniture designs, PC board designs, woodworking plans, cabinets, decks, electrical and plumbing systems and skylights. It also has the capability to import and export drawings to and from other graphics programs such as AutoCAD.

Draft & Print is available now at a list price of $129.95 by calling 619/929-2010.

TrueType Font Pack For Windows

Microsoft Corporation (Redmond, Wash.) has announced Microsoft TrueType for Windows, a collection of 44 high-quality TrueType fonts designed and selected specifically for the Windows environment.

Like the 14 TrueType fonts that ship as part of MS Windows operating system version 3.1, these additional 44 outline fonts provide superior type, at any size, that will work with all applications, displays and printers supported by the Windows operating system.

All 44 faces in the TrueType Font Pack support Microsoft's recently announced font embedding technology. Windows-based applications for Windows 3.1 and future versions will allow these fonts to be embedded in the document and transported to another computer, where the document can be read and printed.

The Microsoft TrueType Font Pack for Windows has a suggested retail price of $99.95. More information can be obtained by calling 800/426-9400.

Type of the '20s & '30s

Lazy Dog Foundry (St. Paul, Minn.) has released a new collection of fonts for owners of Macintosh and PC computers. Designers and typesetters now have at their disposal a collection of some of the finest hand-drawn type from the classic era of the twenties and thirties, according to the company. This collection is being released in three separate volumes, each containing ten individual faces.

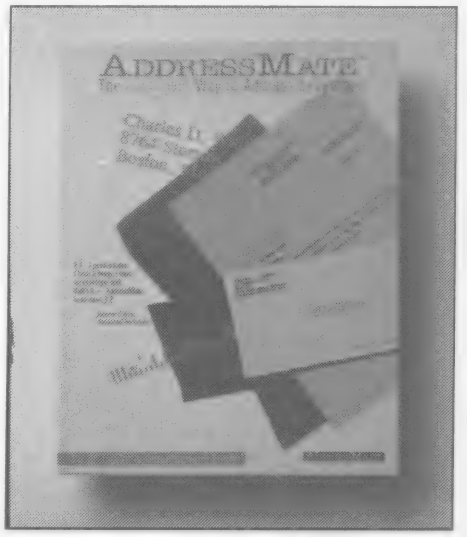
The first volume released recently includes Harpers, Schwere, Berliner, Shrifteen, Greco Deco, Glorietta, Neuland, Littlelouis, Thermo and Isador fonts. Lazy Dog Foundry, known for their introduction of "Personal Fonts" — the conversion of a person's handwriting to a laser font — says Volume Two will be released this month and Volume Three should be out in mid-May.

The volumes will be sold for $69.99 and are available by contacting Lazy Dog Foundry directly at 800/876-9807.

Easy Envelope Printing With AddressMate

AddressMate Software (El Cerrito, Calif.) has released what it says is the first fully automatic envelope addressing and bar coding software package. A memory-resident program that works with DOS word processors, AddressMate works by monitoring data being sent from a PC to laser printers (HP or compatible). When it recognizes a letter en route to a printer, AddressMate automatically extracts the letter's inside address. Envelopes can then be automatically printed after letter output, or saved to disk and queued for printing later. Because AddressMate works in the background, the user can continue to work on new files while envelopes or labels are printing. (Under Windows the software works as a DOS application, though without the automatic address capture feature.)

AddressMate also prints Postnet bar codes, the U.S. Postal Service's machine-readable translation of Zip + 4 Zip codes. "We think we can really help that huge market of people using LaserJet printers that are still using typewriters to address envelopes," said David Block, President of AddressMate Software. Address-Mate is available at an introductory price of $69.95 thru June 30, 1992 (which includes a utility program for importing names from database programs for access to AddressMate's integrated database or to use for mass mailings) directly from AddressMate Software, 6715 Conyon Trail, El Cerrito, CA 94530-1705; phone 510/237-7460.



— *David Needle*

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24 Primary business activity of your firm *(check one only)*
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02 ☐ Software development
03 ☐ Manufacturing other
04 ☐ Agriculture, mining, construction
05 ☐ Transportation
06 ☐ Communications
07 ☐ Utilities
08 ☐ Computer related retailer
09 ☐ Non-computer related retailer
10 ☐ Finance, banking, insurance
11 ☐ Real estate
12 ☐ Health, medical service
13 ☐ Legal
14 ☐ Education
15 ☐ Data processing, computer service
16 ☐ Government
17 ☐ Consultant
18 ☐ Wholesale/Distributor
19 ☐ Research/Development
20 ☐ Engineering/Architecture
21 ☐ Other business services
22 ☐ Advertising
23 ☐ Sales/Marketing
24 ☐ Personnel Placement
25 ☐ Entertainment
26 ☐ Other *(please specify)* _____

22 Title *(check one only)*
01 ☐ Chairman/Pres./Owner/Partner
02 ☐ VP—All
03 ☐ Controller/Treasurer
04 ☐ Director
05 ☐ General Manager
06 ☐ Business Manager
07 ☐ Project Manager Chief/Group Leader
08 ☐ Prod./Merch. Manager
09 ☐ Manager/Supervisor not listed above
10 ☐ Data Base Administrator
11 ☐ Other Administrator
12 ☐ Physician
13 ☐ Accountant
14 ☐ Attorney
15 ☐ Consultant/Advisor
16 ☐ Bus. Microcomputer Specialist
17 ☐ Systems Analyst
18 ☐ Writer
19 ☐ Coordinator
20 ☐ Programmer
21 ☐ Engineer
22 ☐ Educator
23 ☐ Representative
24 ☐ Other (please specify) _____

25 Company Size (check one only)
A ☐ Under 10 employees
B ☐ 10-24
C ☐ 25-99
D ☐ 100-249
E ☐ 250-999
F ☐ 1000-2499
G ☐ 2500-4999
H ☐ Over 5000

26 Department (check one only)
01 ☐ Accounting
02 ☐ Administration Management
03 ☐ Communications
04 ☐ Consulting
05 ☐ EDP/MIS
06 ☐ Education/Training
07 ☐ Engineering
08 ☐ Finance
09 ☐ Marketing
10 ☐ Operations
11 ☐ Personnel
12 ☐ Production/Plant
13 ☐ Purchasing
14 ☐ Research & Development
15 ☐ Sales
16 ☐ Other *(please specify)* _____

Does your firm have personal computers?
☐ Yes: If yes, please indicate quantities below. Complete both columns.
☐ No

		34: Number currently owned:	35: Number plan to purchase within next 12 months:
A	PC (286) Compatible		
B	PC (386) Compatible		
C	PC (486) Compatible		
D	Notebook PC		
E	Macintosh Classic, or SE		
F	Macintosh LC		
G	Macintosh IIcx, IIsi, IIci		
H	Macintosh IIfx		
I	Macintosh Powerbook		
J	Amiga		
K	NeXT Workstation		
L	Sun SPARC system		
M	Other *(Please Specify)*		

30 Please estimate your department's budget for computer hardware, software and supplies for the next 12 months:
A ☐ Over $500,000
B ☐ 250,000 to 499,999
C ☐ 100,000 to 249,999
D ☐ 50,000 to 99,999
E ☐ 25,000 to 49,999
F ☐ 10,000 to 24,999
G ☐ Under 10,000

31 Through what channels will your department purchase its hardware software and supplies? *(Check as many as apply)*
A ☐ Computer Retail Store
B ☐ Distributor/Wholesaler
C ☐ Value Added Reseller
D ☐ Consultant
E ☐ Mail Order
F ☐ Manufacturer
G ☐ Other _____

In which of the following ways are you yourself involved with personal computers, accessories and supplies?
☐ Use them
☐ Recommend them
☐ Establish specifications
☐ Approve purchase
☐ Acquire them
☐ Evaluate or select suppliers
☐ Train people to use
☐ Sell them
☐ Develop or manufacture
☐ No involvement
☐ Other involvement *(please specify)* _____

32 For how many personal computers or microcomputer systems do you have this involvement? *(Check one only.)*
A ☐ 1-3
B ☐ 4-9
C ☐ 10-24
D ☐ 25-49
E ☐ 50-99
F ☐ 100 or more

PLEASE BE SURE TO SIGN YOUR NAME AND INDICATE YOUR TITLE

Your signature _____

Print your name _____

Title _____

Date _____

Company _____

Address _____

City/State/Zip _____

Have you answered all questions?

BBS and User Groups

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The PC Library BBS — IBM, 300-14400 baud, Echos, Netmail, Games online. File and Message area, 1.2 giga megs., 24 hrs. 508/966-2032

The World — A Public Information Utility. Public access Unix (Sun server), Internet, Email, USENET, FTP, Telnet, IRC, Software, Text Archives. $5/mo+$2/hr or $20/mo for 20 hrs. Modems: 617/739-WRLD. Office: 617/739-0202. E-mail: staff@world. std. com.

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Name of Organization _____

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Your Listing _____

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(name/phone for CC use only)

Rate: _____

To have your group or BBS listing in the User Group and Bulletin Board section, we must receive your information and payment a month before publicaton. We do not accept listings for sexually-oriented bulletin boards. We reserve the right to edit listings.

CALENDAR

Meeting times and locations may change at the last minute; call first for confirmation.

We welcome notices of upcoming events for our Calendar. Notices must be received by the second Friday of the month prior to publication. Please mail information to: Calendar, Boston Computer Currents, 4 Chrysler Road, Natick, MA 01760. Or send your notice via MCI Mail to "MZIENTARA." Or fax to 617/593-2682.

Please Note: Boston Computer Society (BCS) listings are courtesy of the BCS. BCS events are for members only; nonmembers are invited to attend one meeting before joining the Society. BCS headquarters are at One Kendall Square, Cambridge, MA 02139. Telephone 617/252-0600.

May 4

Finance and Information Technology

MIT seminar series: "Discussion of Object-Oriented Systems." 10 a.m. to 12 noon, at TASC, 55 Walkers Brook Drive, Reading, Mass. Free. Call MIT Conference Office at 617/253-0213.

Pen-Based Computing Conference

A two-day conference presented by Digital Consulting, Inc. (Andover, Mass.), to be held at the Sheraton Boston, 39 Dalton Street, Boston. Fee: $895 (includes proceedings and luncheons). Call 508/470-3880.

DOS/Windows User Group

Worcester Computer Society meeting. Open to the public free of charge. 7 p.m. at St. Thomas Episcopal Church, 35 School Street, Auburn, Mass. Call Jacques Travers at 508/885-6007.

May 5

Effective Reports, Proposals & Memos

A two-day (May 5-6) seminar offered by Information Mapping, Inc. at its offices, 300 Third Avenue, Waltham, Mass. Call 617/890-7003.

May 8

Advanced Windows 3.1

A one-day seminar presented by CMP Conference & Exhibit Group (Manhasset, N.Y.), to be held at the Back Bay Hilton, Boston. For support staff and power users. Fee: $295. Call 800/972-5244.

May 11

Mac User Group

Worcester Computer Society presents "Troubleshooting Your Mac." Free and open to the public. 7 p.m., Worcester Academy's Kingsley Hall, Worcester. Call David Peller at 508/476-7014.

May 12

Electro/92

Electro/92 show, May 12-14, for design, test and production engineers, and engineering & corporate managers. Lotus President & CEO Jim Manzi will keynote on May 12 at a noon luncheon (cost for luncheon, $25). Keynote and over 800 exhibits at the Hynes Convention Center, Boston. For pricing and other information, call 800/877-2668.

May 13

Cape Cod Business & Computer Expo

A one-day exposition presented by *Business Digest*, held at Cape Cod Plaza Hotel & Conference Center (formerly Sheraton Hyannis), Route 132, Hyannis, Mass. Hours: 10 a.m. to 8 p.m. For information, call 508/778-5042.

Ventura Users of Greater Boston

We'll demonstrate how WordPerfect macros can automate your Ventura production. 6:45 p.m., Hanscom Air Force Base, Building 1218. For more information, call 617/275-3592.

May 18

Mastering FoxPro 2.0

Adam Green Seminars (Boston) presents a five-day (May 18-22) seminar comprising two levels of training: "Everything New in 2.0," Monday-Wednesday ($695); and "Advanced 2.0 Techniques," Thursday- Friday ($495). Attend both and save $195. To be held in Boston. Limited space available. Call 617/227-8540.

May 21

Society for Information Management

"IS Partnership." Boston University Professor John Henderson speaks at luncheon meeting. 12 noon to 2 p.m., Anthony's Pier 4, Boston. For fees and reservations, call 617/237-1570.

May 23

Youth CompuFest '92

Second Annual Youth CompuFest, sponsored by BCS and Lotus. A day-long exhibition and competition for students in grades K-12. Free and open to the public. For information, call the BCS at 617/252-0600.

May 27

BCS General Meeting

"The New Frontier in Computing — Using a Pen." Vern Raburn, Slate Corp. chairman, and Dan Bricklin, Slate vice-president, return to the BCS to show a roundup of Slate's products and discuss trends in pen computing. 7:30 p.m., New England Life Hall, 225 Clarendon Street, Boston. Call BCS at 617/252-0600.

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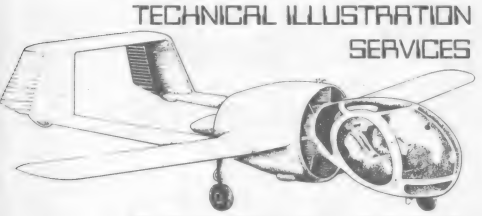

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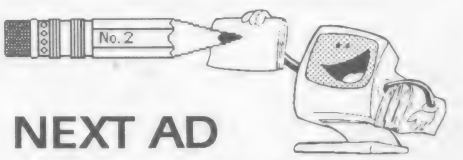

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The Boston Computer Exchange

The action in the secondary market was focused on the older Macintoshes which traded in volume at new lower prices. The Macintosh Plus with 20-megabyte drive was notable for its price reduction of $100 to close at $600. The whole arena of Mac Plus machines dropped upon news of a price reduction on the dealer cost of the Classic. The Mac Plus with floppy drive was off $75 to close at $425 and the used Classic was off $25 at $875. The Toshiba laptops and luggables were all active with the T-3200SX dropping $200 to close at $1,500. The whole laptop market is shuddering through a new wave of notebooks at lower prices that are putting negative pressure on older models.

The following prices are for the week ending April 17, 1992.

The BoCoEx Index Of Used Computer Prices

Base Product	RAM	Drive	($)Price
ISA Bus 80286	1MB	30MB	450
ISA Bus 80386 SX	1MB	40MB	900
ISA Bus 80386 DX	2MB	40MB	1000
VGA Mono Monitor			50
VGA Color Monitor			200
Laser Printer — less than 7ppm			450
Laser Printer — HP Series 2 Compatible			800
Laser Printer — HP Series 3 Compatible			1100

Machine	($)Price	($)Ask	($)Bid
IBM AT 239 20MB	550	650	175
IBM AT 339 30MB	600	1000	250
IBM PS/2 Model 50 20MB	750	800	300
IBM PS/2 Model 50Z 30MB	900	1100	325
IBM PS/2 Model 55 60MB	1800	1900	1000
IBM PS/2 Model 60 40MB	700	900	325
IBM PS/2 Model 70 120MB	2650	2800	1200
Compaq Portable III 20MB	550	650	250
Compaq SLT-286 40MB	1200	1300	500
Compaq LTE-386 60MB	2100	2400	1600
Compaq Deskpro 20MB	325	450	300
Compaq Deskpro 386 30MB	1000	1200	700
NEC PowerMate II 40MB	500	600	500
NEC PowerMate SX+ 40MB	1250	1350	1200
Zenith SupersPort-286 20MB	600	600	250
Macintosh Plus 20MB	600	750	475
Macintosh Classic 40MB	875	1050	700
Macintosh SE 20MB	800	875	600
Macintosh SE/30 40MB	1600	1550	1200
Macintosh IIcx 40MB	2000	2300	1800
Macintosh IIfx 80MB	4300	4900	3700
Apple ImageWriter II	225	350	100
Apple LaserWriter IINT	1600	1750	1200
HP LaserJet	425	500	150
HP LaserJet II	850	950	550
Toshiba T-1200HB 20MB	750	900	500
Toshiba T-1600 20MB	750	750	400
Toshiba T-3100 20MB	700	1050	500
Toshiba T-5100 40MB	1400	1700	900

BoCoEx Index prices are based on complete systems with keyboard, monochrome monitor and adapter, less the value of any software or peripherals. Boston Computer Exchange is available at 617/542-4414; Buyer's Hotline: 800/262-6399; fax: 617/542-8849. BoCoEx Index is available on Fax Yourself Information, 617/542-2345 extension 300.

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Natick, MA 01760
508/879-0700

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By Lincoln Spector

Big Irony

How do modern Information Services technicians, trained in the mainframe world of big iron, cope in an industrial environment where massive computing power is used primarily to put pretty pictures on the screen? To find out, we sought Frederick Mertz, Manager of Information Services for the Once Upon a Time Savings and Loan Company.

Fred has worked with computers since 1969, when he got a job cleaning punch cards for MIT. He started with OUT/S&L as a programmer in 1976, and completed his first program in 1980. He was promoted to MIS in 1984, after throwing a Compaq portable through a window. When I spoke to him, he was involved in downsizing OUT/S&L's operations to run on a fleet of XT clones.

Fred, you've gained a reputation for being anti-PC. Why is that?

Basically, I disapprove of any political movement that tries to put straight jackets on what people are allowed to say. I also don't like the way the so-called PC folks keep attacking the president.

By PC, I mean, of course, personal computers.

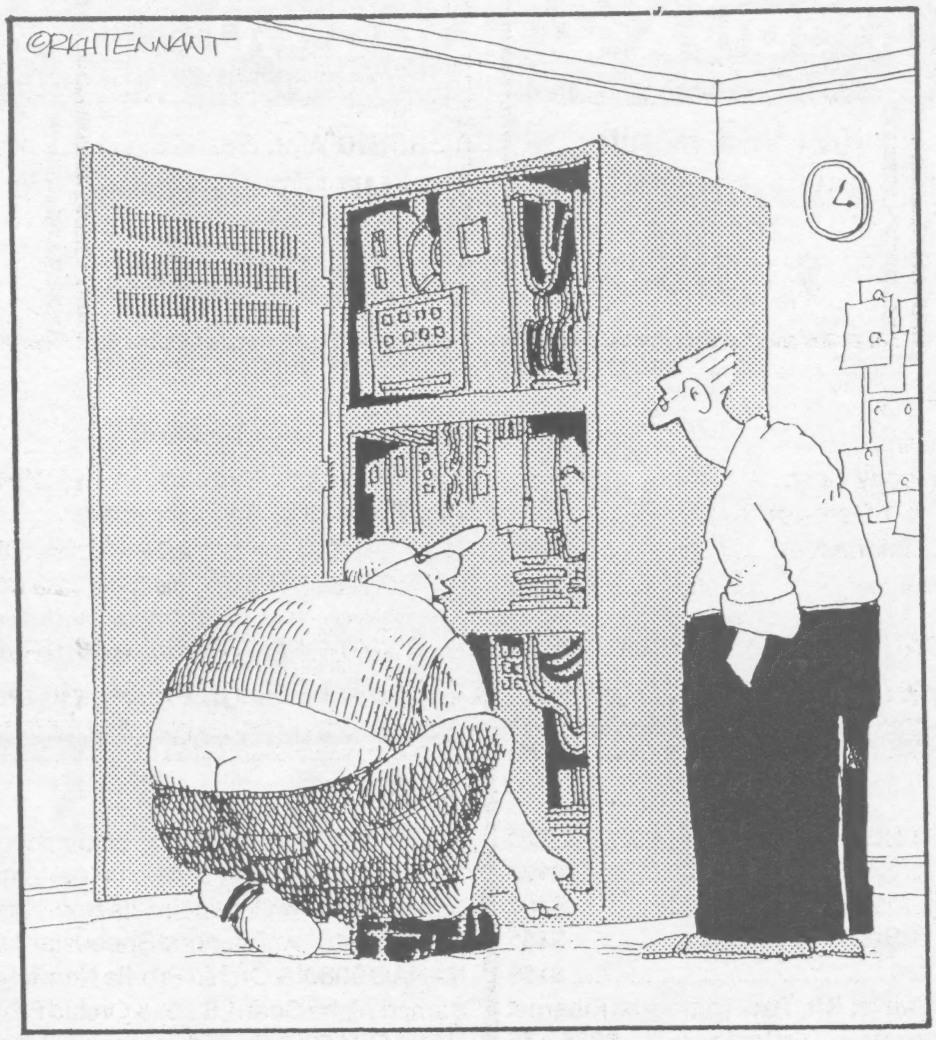
That, too. Actually, I don't hate PCs anywhere near as much as people think I do. That Compaq incident was eight years ago, and I've learned to respect PCs quite a bit in that time.

What was it that changed your mind?

A desire to keep my job. You have to keep your options open when you work in a technological field, and adapting to new ways of doing things can be beneficial to overall efficiency — especially when your boss threatens to fire you.

What were some of your initial objections to personal computers?

For one thing, they encourage bad programming habits. I believe in programming the old-fashioned way: I take a pad of paper and a pencil and write down every line of code. Then I debug the code by reading what I wrote, one line at a time, following the logic, imagining what I would do if I were a computer. When I'm certain the code is bug-free, I turn it over to a technician who enters it into punch cards, then...



"YEAH, I USED TO WORK ON REFRIGERATORS, WASHING MACHINES, STUFF LIKE THAT- HOW'D YOU GUESS?"

Excuse me. You still use punch cards?

You know, now that you mention it, I've never seen her actually use a punch card. She gets it into the computer somehow. Anyway, the point is that by the time one of my programs gets into a computer, I've already spent five or six hundred hours debugging it. Can people who write directly onto their PCs say that?

That's what caused the Compaq incident. I was a programmer then, not yet in charge of the dep rtment, and I was assigned to write a new program to tabulate how 1981 taxes would affect savings. When I tried to discuss my prototype with the user in 1984, I discovered that he'd long since written it himself in BASIC. That didn't seem acceptable at the time.

Understandable. What about data integrity? Was that an issue with PCs versus mainframes?

Very definitely. When management first wanted to bring in PCs, I tried to convince them that desktop computers just weren't dependable enough for mission-critical data. They argued, rather convincingly, I think, that a savings and loan doesn't really have any mission-critical data.

Now that you've worked with PCs for awhile, do you think they have any advantages over mainframes?

Well, let's see. They're cheaper, easier to maintain, they give the individual user a lot more freedom. No, I can't think of any.

You know, people act strange about their PCs. For instance, one of our secretaries was having trouble printing. While I was trying to figure out the problem, I loaded WordPerfect on her machine, and immediately noticed that the letters were yellow instead of white. When swapping her monitor and VGA card didn't solve the problem, I figured her software was corrupt, so I wiped the directory and re-installed WordPerfect.

That fixed the problem, but was she grateful? Of course not! She accused me of destroying her setup and erasing all these macros she'd written over the years.

What about viruses? Are they a problem in your office?

Epidemic. Everyone here has been fighting off the same cold for two months. I think it's the building's air conditioning.

I meant computer viruses.

We follow very strict rules to keep computer viruses in line. No one in the company is allowed to log onto a BBS, write their own software, or sneeze onto a floppy disk. What's more, all floppies that are brought into the company must be bulk-erased and reformatted before anyone copies data or programs off of them.

How do you feel about Windows and other graphical user interfaces?

At first I was opposed to them. But, you know, the eighties are over. The bottom line isn't everything, anymore; people are slowing down, taking the time to enjoy life. Aesthetics are important again. So it's not surprising that people are switching to Windows.

One more question: After graphical user interfaces, do you think other advances will come along to make life easier for the average computer user?

I hope not.

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Lincoln Spector is the author's real name, appearing on both his driver's license and his birth certificate. An associate editor at ***PC World****, Lincoln can be reached via MCI Mail as "LSPECTOR."*

Gigglebytes is a satirical column loosely based on computer industry events, trends and people. The opinions expressed in this column are the writer's and do not necessarily reflect those of *Computer Currents*.

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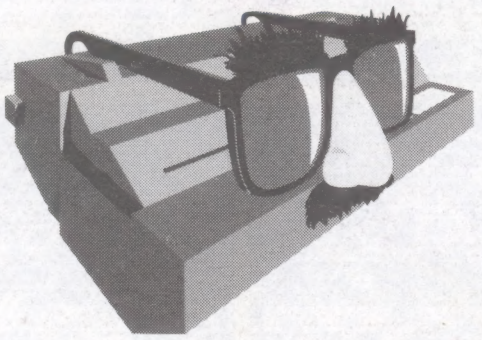
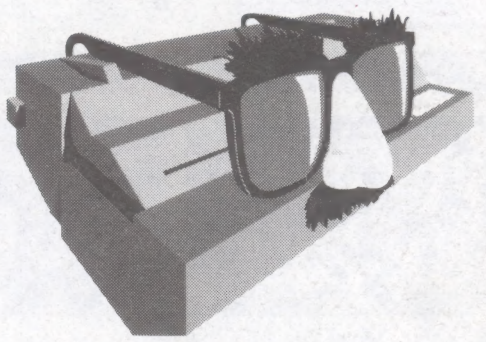


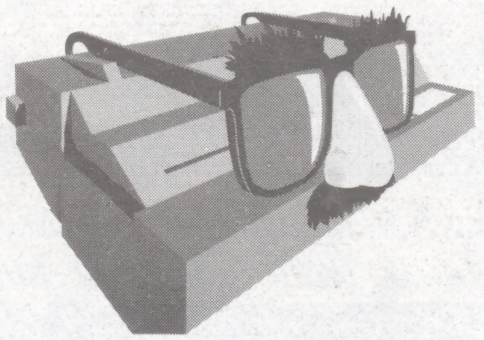
DRILL & FILL

An ill-conceived method that involves drilling holes in the toner cartridge. Contamination and failure to inspect and clean critical parts results in unhappy drill-and-fill customers.



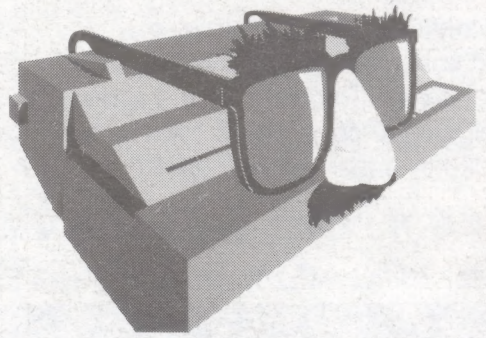
RECONDITIONERS

These cartridges get cleaned and toner is added but important parts may not be checked and replaced when necessary. Parts may wear out before the toner cartridge is empty resulting in a higher cost in materials and lost time to the customer.



REMANUFACTURERS

Worn parts may be replaced and a more effective cleaning process takes place, but in this process the customers usually get their own cartridge back. There can be a problem of contaminated toner cartridges.



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Because a dealer who shops for price might buy any or all of these methods a customer may experience a difference in print quality and consistency from one cartridge to the next.

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